

FIRE FIGHTER ADVISORY COMMITTEE

AGENDA

May 31, 2013, 8:00 A.M.

1701 N. Congress Avenue, William B. Travis Building, Room 1-104, Austin, Texas

The Fire Fighter Advisory Committee will convene in open session to deliberate and possibly take formal action on any of the following agenda items:

1. Roll call – 8:00 a.m.
2. Adoption of the March 21, 2013 Fire Fighter Advisory Committee meeting minutes.
3. Report from the Curriculum and Testing Committee with discussion and possible action on recommendations regarding changes to the Certification Curriculum Manual, including but not limited to the following:
 - a. Fire Investigator, 1033 Matrix, curriculum outline and phase outline
 - b. Instructor I, II and III curricula, outlines and reference lists
 - c. Fire Officer III and IV reference lists
 - d. Basic Wildland Fire Fighter reference list
 - e. Intermediate Wildland Fire Fighter curriculum, outline, reference list and skill sheets
 - f. HazMat Operations Mission-Specific Competencies, HazMat Technician and HazMat Incident Commander reference lists
4. Discussion and possible action regarding proposed rule changes to title 37 TAC, Chapter 421, Standards For Certification, including but not limited to, §421.1, Procedures for Meetings, §421.3, Minimum Standards Set by the Commission, §421.5, Definitions, §421.9, Designation of Fire Protection Duties, §421.11, Requirement to be Certified Within One Year, §421.13, Individual Certificate Holders, §421.15, Extension of Training Period, and §421.17, Requirement to Maintain Certification.
5. Discussion and possible action regarding proposed rule changes to title 37 TAC, Chapter 423, Fire Suppression, Subchapter A, Minimum Standards for Structure Fire Protection Personnel Certification, including but not limited to, §423.1, Minimum Standards for Structure Fire Protection Personnel, §423.3, Minimum Standards for Basic Structure Fire Protection Personnel Certification, §423.5, Minimum Standards for Intermediate Structure Fire Protection Personnel Certification, §423.7, Minimum Standards for Advanced Structure Fire Protection Personnel Certification, §423.9, Minimum Standards for Master Structure Fire Protection Personnel Certification, §423.11, Higher Levels of Certification, §423.13, International Fire Service Accreditation Congress (IFSAC) Seal.
6. Discussion and possible action regarding proposed rule changes to title 37 TAC, Chapter 455, Minimum Standards for Wildland Fire Protection Certification, including but not limited to, §455.1, Minimum Standards for Wildland Fire Protection Personnel, §455.3, Minimum Standards for Basic Wildland Fire Protection Certification, §455.5, Minimum Standards for Intermediate Wildland Fire Protection Certification, and §455.7, Examination Requirements.
7. Discussion and possible action on National Fire Protection Association 1981 Standard on Open Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services and 1982 Standard on Personal Alert Safety Systems (PASS).
8. Discussion and possible action on fire fighter injury data collection.
9. Discussion and possible action on future meeting dates, locations and agenda items.
10. Adjourn meeting.

1. Roll call--8:00 a.m.

2. Adoption of the March 21, 2013 Fire Fighter Advisory Committee meeting minutes.

TEXAS COMMISSION ON FIRE PROTECTION

Presiding Officer Jim Reidy called the March 21, 2013 meeting of the Fire Fighter Advisory Committee to order at 9:00 a.m. at the William B. Travis Building, 1701 N. Congress Ave., Room 1-104, in Austin, Texas.

Attending Jim Reidy Michael Wisko Tommy Anderson* Amado Cano, Jr.
Jason Collier Daniel DeYear J. P. Steelman Michael Jones

*absent entire meeting

**absent part of meeting

Staff Mike Baker Deborah Cowan Don Wilson Mollie Clakley Tim Rutland Mark Roughton
Andrew Lutostanski, Assistant Attorney General

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1. Roll call Secretary J. P. Steelman called roll and a quorum was present.
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2. Adoption of Minutes A motion was made by J. P. Steelman and seconded by Mike Jones to approve the minutes of the January 8, 2013, fire fighter advisory committee meeting as discussed. The motion carried.
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3. Report from Curriculum & Testing Committee Pat McAuliff, Chairman gave a brief update from the committee's last meeting. He informed the committee the Intermediate Wildland Fire Fighter Curriculum was still under review and hoped to have it ready for the next meeting. He also provided names of two nominations to the committee to replace two current vacancies.
- After discussion, a motion was made by Mike Jones and seconded by Jason Collier to send the names of Martin Davila, San Antonio College and Daryl Maretko, Wharton County Jr. College to the commission for appointment to the Curriculum and Testing Committee. The motion carried.
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4. 37 TAC, Chapter 421 A motion was made by Daniel DeYear and seconded by J. P. Steelman, to approve for recommendation to the commission amendments to 37 TAC, Chapter 421, §421.3 and §421.5 as discussed. The motion carried.
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5. 37 TAC, Chapter 427 A motion was made by Jason Collier and seconded by Mike Jones to approve for recommendation to the commission amendments to 37 TAC, Chapter 427, Subchapter C, 427.307 as discussed. The motion carried.
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6. 37 TAC, Chapter 437 A motion was made by Amado Cano Jr., and seconded by Daniel DeYear to approve for recommendation to the commission amendments to 37 TAC, Chapter 427, §437.13 with changes as discussed. The motion carried.
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7. 37 TAC, Chapter 439 A motion was made by Jason Collier and seconded by J. P. Steelman to approve for recommendation to the commission amendments to 37 TAC, Chapter 439, Subchapter A, §§439.1, 439.5 and 439.19 as discussed. The motion carried.
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8. 37 TAC, Chapter 449 A motion was made by J. P. Steelman and seconded by Mike Jones to approve for recommendation to the commission amendments to 37 TAC, Chapter 449, §449.3 and §449.5 with changes as discussed. The motion carried.
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9. 37 TAC, Chapter 455 A motion was made by Jason Collier and seconded by Daniel DeYear to approve for recommendation to the commission amendments to 37 TAC, Chapter 455, §455.5 as discussed. The motion carried.

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| 10. 37 TAC,
Chapter 457 | A motion was made by J. P. Steelman and seconded by Amado Cano, Jr., to approve for recommendation to the commission amendments to 37 TAC, Chapter 457, §457.5 as discussed. The motion carried. |
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| 11. Head of a
Fire Department
Curriculum | No action necessary. |
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| 12. Certification
training
outside agency
jurisdiction | No action necessary. |
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| 13. Continuing
Education
Credit | Mr. David Covington, Fire Chief, Schertz Fire Rescue gave a brief presentation and provided information on the Federal Highway Administration's Strategic Highway Research Program.

After discussion, a motion was made by Mike Jones and seconded by Daniel DeYear to approve for recommendation to the commission as continuing education credit. The motion carried. |
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| 14. Fire Fighter
injury data
review | A motion was made by Michael Wisko and seconded by Mike Jones to approve for recommendation to the commission the findings/recommendations with changes as discussed. The motion carried. |
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| 15. Future meeting
dates, locations
agenda items | Chapter 421
Intermediate Wildland Fire Fighter Certification Curriculum
Certification training outside agency jurisdiction |
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| 16. Adjournment
meeting. | A motion was made by Mike Jones and seconded by J. P. Steelman to adjourn the meeting. The motion carried. |

Jim Reidy
 Presiding Officer

3. **Report from the Curriculum and Testing Committee with discussion and possible action on recommendations regarding changes to the Certification Curriculum Manual, including but not limited to the following:**
 - a. **Fire Investigator, 1033 Matrix, curriculum outline and phase outline**
 - b. **Instructor I, II and III curricula, outlines and reference lists**
 - c. **Fire Officer III and IV reference lists**
 - d. **Basic Wildland Fire Fighter reference list**
 - e. **Intermediate Wildland Fire Fighter curriculum, outline, reference list and skill sheets**
 - f. **HazMat Operations Mission-Specific Competencies, HazMat Technician and HazMat Incident Commander reference lists**

NFPA 1033 MATRIX

2009 Objective	LOCATION IN CURRICULUM	SKILL
4.1	GENERAL	
4.1.1	1	None
4.1.2	4	None
4.1.3	12, 17.3.1	None
4.1.4	13, 27	None
4.1.5	11, 13.2	None
4.1.6	14, 27	None
4.2	SCENE EXAMINATION	
4.2.1	14, 16	1
4.2.2	12, 17	2, 27
4.2.3	17, 18	3
4.2.4	5, 6	4
4.2.5	5, 6, 17, 18	5
4.2.6	5, 14, 16, 17 18	6
4.2.7	6, 17.3.2	7
4.2.8	7, 8, 9, 13, 24	8
4.2.9	21	6
4.3	DOCUMENTING THE SCENE	
4.3.1	15, 16	9
4.3.2	15	10
4.3.3	11, 15	11
4.4	EVIDENCE COLLECTION/PRESERVATION	
4.4.1	10 , 16, 23	12
4.4.2	11, 16	12
4.4.3	16	12
4.4.4	11, 16	13
4.4.5	16	14
4.5	INTERVIEW	
4.5.1	13	15
4.5.2	10 , 13	16
4.5.3	13	17
4.6	POST-INCIDENT INVESTIGATION	
4.6.1	13 , 19, 20	18
4.6.2	15, 19, 20	19
4.6.3	11, 13	20
4.6.4	10, 19 , 22	21
4.6.5	17, 18, 19, 20, 22	22
4.7	PRESENTATIONS	
4.7.1	29	23
4.7.2	29	24
4.7.3	11, 29	25
4.7.4	29	26
Annex A	EXPLANATORY MATERIAL	
A.1.1	25, 26, 28	

**CHAPTER FIVE
FIRE INVESTIGATOR
COURSE OUTLINE**

SECTION	SUBJECT	RECOMMENDED HOURS
500 501-1	Commission on Fire Protection Rules and Regulations	0
500 501-2	INTENTIONALLY LEFT BLANK	0
500 501-3	Definitions	0
500 501-4	Basic Methodology	2
500 501-5	Basic Fire Science	8
500 501-6	Fire Patterns	8
500 501-7	Building Systems	4
500 501-8	Electricity and Fire	8
500 501-9	Building Fuel Gas Systems	4
500 501-10	Fire-Related Human Behavior	2
500 501-11	Legal Considerations	8
500 501-12	Safety	2
500 501-13	Sources of Information	8
500 501-14	Planning the Investigation	2
500 501-15	Documentation of the Investigation	8
500 501-16	Physical Evidence	4
500 501-17	Origin Determination	8
500 501-18	Fire Cause Determination	4
500 501-19	Analyzing the Incident for Cause and Responsibility	8
500 501-20	Failure Analysis and Analytical Tools	8
500 501-21	Explosions	4
500 501-22	Incendiary Fires	8
500 501-23	Fire and Explosion Deaths and Injuries	4
500 501-24	Appliances	2
500 501-25	Motor Vehicle Fires	8
500 501-26	Wildfire Investigations	3
500 501-27	Management of Complex Investigations	2
500 501-28	Marine Fire Investigations	3
501-29	Practical Exercises	20
	TOTAL HOURS RECOMMENDED	150

* The recommended hours for skills evaluation is based on 12 students. Actual hours needed will depend on the number of students, the number of examiners, availability of equipment, and the student skill level.

**CHAPTER FIVE
FIRE INVESTIGATOR
COURSE PHASE OUTLINE**

SECTION	SUBJECT	RECOMMENDED HOURS
FIRE INVESTIGATOR I – PHASE I		
500 501-4	Basic Methodology	2
500 501-14	Planning the Investigation	2
500 501-13	Sources of Information	4
500 501-11	Legal Considerations	6
500 501-12	Safety	2
500 501-5	Basic Fire Science	4
500 501-6	Fire Patterns	6
500 501-7	Building Systems	4
500 501-9	Building Fuel Gas Systems	2
500 501-17	Origin Determination	6
500 501-15	Documentation of the Investigation	6
500 501-16	Physical Evidence	4
501-29	Practical Exercises*	6
	Total Recommended Hours	54
FIRE INVESTIGATOR II – PHASE II		
500 501-18	Fire Cause Determination	4
500 501-10	Fire-Related Human Behavior	2
500 501-21	Explosions	4
500 501-23	Fire and Explosion Deaths and Injuries	3
500 501-8	Electricity and Fire	6
500 501-22	Incendiary Fires	6
500 501-19	Analyzing the Incident for Cause and Responsibility	6
500 501-20	Failure Analysis and Analytical Tools	6
500 501-24	Appliances	2
500 501-25	Motor Vehicle Fires	3
500 501-28	Marine Fire Investigations	2
500 501-26	Wildfire Investigations	2
500 501-27	Management of Complex Investigations	2
501-29	Practical Exercises*	8
	Total Recommended Hours	56
COMPLETER – PHASE III		
	Investigator I and II Review	8
501-29	Practical Exercises*	32
	Total Recommended Hours	40
TOTAL HOURS RECOMMENDED		150

*The recommended hours for skills evaluation is based on 12 students. Actual hours needed will depend on the number of students, the number of examiners, availability of equipment, and the student skill level.

REFERENCE LIST FOR THE FIRE INSTRUCTOR I CURRICULUM

Fire and Emergency Services Instructor (8th ed.). (2012). Stillwater, OK: International Fire Service Training Association, Oklahoma State University.

Fire Service Instructor: Principles and Practice (2nd ed.). (2014). Burlington, MA: Jones and Bartlett Learning.

NFPA 1041: Standard for Fire Service Instructor Professional Qualifications (2012 ed.). Quincy, MA: National Fire Protection Association. NFPA Publications.

NFPA 1401: Recommended Practice for Fire Service Training Reports and Records (2012 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association.

NFPA 1403: Standard on Live Fire Training Evolutions (2012 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association.

Standards Manual for Fire Protection Personnel. Austin, TX: Texas Commission on Fire Protection.

CHAPTER EIGHT
FIRE INSTRUCTOR I
CURRICULUM OUTLINE

SECTION	SUBJECT	RECOMMENDED HOURS
801-4.1	General	1
801-4.2	Program Management	7
801-4.3	Instructional Development	16
801-4.4	Instructional Delivery	16
801-4.5	Evaluation and Testing	8
	TOTAL RECOMMENDED HOURS	48

SECTION 801

FIRE INSTRUCTOR I

A Fire Instructor I is a fire service instructor who has demonstrated the knowledge and ability to:

- deliver instruction effectively from a prepared lesson plan, including instructional aids and evaluation instruments;
- adapt lesson plans to the unique requirements of the students and authority having jurisdiction (AHJ);
- organize the learning environment so that learning is maximized;
- meet the record-keeping requirements of the AHJ.

801-4.1 General

801-4.1.1 The Fire Service Instructor I shall meet the JPRs defined in Sections 801-4.2 through 801-4.5 and meet any other certification requirements.

801-4.2 Program Management

801-4.2.1 **Definition of Duty.** The management of basic resources and the records and reports essential to the instructional process.

801-4.2.2 Assemble course materials, given a specific topic, so that the lesson plan and all materials, resources, and equipment needed to deliver the lesson are obtained.

Requisite Knowledge. Components of a lesson plan, policies and procedures for the procurement of materials and equipment, and resource availability.

- 1) Components of a lesson plan
 - a) Lesson presentation preparation
 - b) Lesson title or topic
 - c) Time frame
 - d) Level of instruction
 - e) Behavioral objectives
 - f) Materials needed
 - g) Prerequisites
 - h) Instructor notes
 - i) References/resources

- 2) Policies and procedures for the procurement of materials and equipment, and resource availability

- a) Identify materials and equipment necessary
- b) Determine availability
- c) Acquire or reserve
- d) Alternate resource planning (backup plan)
- e) Return materials and equipment

Requisite Skills. None required.

801-4.2.3 Prepare requests for resources, given training goals and current resources, so that the resources required to meet training goals are identified and documented.

Requisite Knowledge. Resource management, sources of instructional resources and equipment.

- 1) **Resource management**
 - a) **Facilities**
 - b) **Apparatus**
 - c) **Equipment**
 - d) **Supplies**
- 2) **Sources of instructional resources and equipment**
 - a) **Government reports**
 - b) **Videos**
 - c) **Texts**
 - d) **Related websites**

Requisite Skills. Oral and written communication, forms completion.

801-4.2.4 Schedule single instructional sessions, given a training assignment, department scheduling procedures, instructional resources, facilities and timeline for delivery, so that the specified sessions are delivered according to department procedure.

Requisite Knowledge. Departmental scheduling procedures and resource management.

- 1) **Departmental scheduling procedures (AHJ)**
- 2) **Resource management**
 - a) **Scheduling facilities**
 - b) **Scheduling apparatus**
 - c) **Scheduling equipment**
 - d) **Scheduling supplies**

Requisite Skills. Training schedule completion.

801-4.2.5 **(This is the old 4.2.3)** Prepare **Complete** training records and report forms, given policies and procedures and forms, so that required reports are **accurately** completed and submitted in accordance with the procedures.

Requisite Knowledge. Types of records and reports required, and policies and procedures for processing records and reports.

- 1) Types of records and reports required
 - a) A daily training record
 - b) A company record
 - c) An individual training record
 - d) Special and summary records
- 2) Policies and procedures for processing records and reports
 - a) Federal, state and local requirements
 - b) Agency requirements
 - c) Training or facility provider requirements

Requisite Skills. Basic report writing and record completion.

801-4.3 **Instructional Development**

801-4.3.1 **Definition of Duty.** The review and adaptation of prepared instructional materials.

801-A.4.3.1 The Instructor I should **not** alter the content or the lesson objectives in this process.

801-4.3.2 Review instructional materials, given the materials for a specific topic, target audience, and learning environment, so that elements of the lesson plan, learning environment, and resources that need adaptation are identified.

801-A.4.3.2 The Instructor I, prior to the start of the course, should be able to evaluate local conditions, evaluate facilities for appropriateness, meet local standard operating procedures (SOPs), and evaluate limitations of students.

Requisite Knowledge. Recognition of student limitations and cultural diversity, methods of instruction, types of resource materials, organization of the learning environment, and policies and procedures.

- 1) Recognition of student limitations
 - a) Language
 - b) Learning disability
 - c) Learning style
 - d) Environment
 - e) Cultural and ethnicity
 - f) Physical
 - g) Motivation
 - h) Demographics
 - i) Literacy levels
 - j) Life experiences
 - k) Educational background
- 2) Methods of instruction
 - a) Identify appropriate delivery method for audience
 - i) Demonstration
 - ii) Illustration
 - iii) Lecture
 - iv) Discussion
 - v) Individualized instruction
- 3) Types of resource materials
 - a) Paper-based (books, handouts)
 - b) Electronic (internet, computer-based, audiovisual)
 - c) Subject matter experts (SMEs)
 - d) Equipment/tools of the trade
 - e) Facilities
 - f) Props
- 4) Organizing the learning environment
 - a) Seating
 - b) Lighting
 - c) Climate (indoors/outdoors)
 - d) Safety
 - e) Audiovisual (all inclusive)
 - f) Restrooms/break area
 - g) Noise/distractions
- 5) Policies and procedures
 - a) Federal, state and local requirements
 - b) Agency requirements
 - c) Training or facility provider requirements

Requisite Skills. Analysis of resources, facilities, and materials.

801-4.3.3 Adapt a prepared lesson plan, given course materials and an assignment, so that the needs of the student and the objectives of the lesson plan are achieved.

801-A.4.3.3 The Instructor I should be able to modify the method of instruction and course materials to meet the needs of the student and accommodate the instructor's style. This includes adaptations necessary due to the learning environment, audience, capability of facilities, and types of equipment.

Requisite Knowledge. Elements of a lesson plan, selection of instructional aids and methods, and organization of the learning environment.

- 1) Elements of a lesson plan, from NFPA 1041 A.4.3.3(A)
 - a) Job title or topic
 - b) Level of instruction
 - c) Behavioral objectives, performance objectives, or learning outcomes
 - d) Instructional materials needed
 - e) References/resources
 - f) Preparation step (motivation)
 - g) Presentation step
 - h) Application step
 - i) Lesson summary
 - j) Evaluation step
 - k) Assignment

- 2) Selection of instructional aids and methods, from NFPA 1041 A.4.3.3(A)
 - a) Demonstration
 - b) Illustration
 - c) Lecture
 - d) ~~Discussion~~
 - e) Individualized instruction

- 3) Organization of learning environment
 - a) Review lesson materials
 - b) Review training objectives
 - c) Determine capability of facilities and/or equipment
 - d) Select appropriate learning environment

- 4) **Elements of the communication process, from NFPA 1041 A.4.3.3(A)**
 - a) **Encoding**
 - b) **Transmitting**

- c) **Receiving**
- d) **Decoding**

Requisite Skills. Instructor preparation and organizational skills.

801-4.4 **Instructional Delivery**

801-4.4.1 **Definition of Duty.** The delivery of instructional sessions utilizing prepared course materials.

801-4.4.2 Organize the classroom, laboratory, or outdoor learning environment, given a facility and an assignment, so that lighting, distractions, climate control or weather, noise control, seating, audiovisual equipment, teaching aids, and safety are considered.

Requisite Knowledge. Classroom management and safety, advantages and limitations of audiovisual equipment and teaching aids, classroom arrangement, and methods and techniques of instruction.

- 1) Classroom management and safety
 - a) Security measures
 - b) Evacuation/safety plan
 - c) Safety devices in place/available
 - d) Climate controls
 - e) Proper lighting
- 2) Advantages and limitations of audiovisual equipment and teaching aids
 - a) Non-projected media
 - b) Projected media
 - c) Simulators
 - d) Computer technology
 - e) Audio equipment
- 3) Classroom arrangement
 - a) Seating/table arrangement
 - b) Classroom/training area access
 - c) Minimize distractions
 - d) Media placement
- 4) Methods and techniques of instruction
 - a) Demonstration
 - b) Illustration
 - c) Lecture
 - d) ~~Discussion~~
 - e) Individualized instruction

Requisite Skills. Use of instructional media and teaching aids.

- 801-4.4.3 Present prepared lessons, given a prepared lesson plan that specifies the presentation method(s), so that the method(s) indicated in the plan are used and the stated objectives or learning outcomes are achieved, **applicable safety standards and practices are followed, and risks are addressed.**

Requisite Knowledge. The laws and principles of learning, teaching method techniques, **methods and techniques of instruction**, lesson plan components and elements of the communication process, and lesson plan terminology and definitions; **the impact of cultural differences on instructional delivery; safety rules, regulations and practices; identification of training hazards; elements and limitations of distance learning; distance learning delivery methods; and the instructor's role in distance learning.**

- 1) The laws and principles of learning
 - a) Thorndike's Laws of Learning
 - i) Readiness
 - ii) Exercise
 - iii) Effect
 - iv) Disuse
 - v) Association
 - vi) Recency
 - vii) Primacy
 - viii) Intensity
- 2) Teaching methods and techniques **Methods and techniques of instruction**
 - a) Demonstration
 - b) Illustration
 - c) Lecture
 - d) Discussion
 - e) Individualized instruction
 - f) Oral questioning
 - i) Overhead
 - ii) Rhetorical
 - iii) Relayed
 - iv) Directed
- 3) Lesson plan components and elements of the communication process, from NFPA 1041 A.4.3.3(A)
 - a) Lesson title or topic

- b) Level of instruction
 - c) Behavioral objectives, performance objectives, or learning outcomes
 - d) Instructional materials needed
 - e) References/resources
 - f) Preparation step (motivation)
 - g) Presentation step
 - h) Application step
 - i) Lesson summary
 - j) Evaluation step
 - k) Assignment
- 4) The elements of the communication process
- a) Sender
 - b) Message
 - c) Instructional medium
 - d) Receiver
 - e) Feedback
 - f) Environment
- 5) Lesson plan terminology and definitions
- a) Lesson plan
 - b) Lesson title or topic
 - c) Level of instruction
 - d) Behavioral objectives, performance objectives, or learning outcomes
 - e) Instructional materials (aids, tools and equipment, materials and supplies)
 - f) References
 - g) Resources
 - h) Preparation step (motivation of learner)
 - i) Presentation step
 - j) Application step
 - k) Lesson summary
 - l) Evaluation step
 - m) Assignment
- 6) **The impact of cultural differences on instructional delivery**
- a) **Student backgrounds**
 - i) **Cultural**
 - ii) **Ethnic**
 - b) **Values**
 - c) **Behaviors**
 - d) **Attitudes**

- 7) **Safety rules, regulations and practices**
 - a) **Applicable NFPA standards (i.e., 1403, etc.)**
 - b) **TCFP rules**
 - c) **Federal and state regulations**
 - d) **Departmental policies and procedures**
 - e) **Equipment manufacturers' recommendations**

- 8) **Identification of training hazards**
 - a) **Slips, trips and falls**
 - b) **Environmental**
 - c) **Thermal**
 - d) **Sharp objects**
 - e) **Mechanical**
 - f) **Chemical**
 - g) **Apparatus, machinery or equipment operations**

- 9) **Elements and limitations of distance learning**
 - a) **Students and instructors are in separate locations**
 - b) **Interactive media used for communications and instruction**
 - i) **Internet/intranet**
 - ii) **Interactive television**
 - iii) **Mail/e-mail**
 - c) **Instructor difficulties**
 - i) **No immediate feedback**
 - ii) **Limited interaction**
 - d) **Student difficulties**
 - i) **Motivation**
 - ii) **Time allocation**
 - iii) **Technical difficulties**

- 10) **Distance learning delivery methods, from NFPA 1041 A.4.4.3(A)**
 - a) **Online learning**
 - b) **Blended e-learning**
 - c) **Web-based instruction**
 - d) **Computer-based training**
 - e) **Interactive television**
 - f) **Podcasts**

- 11) **The instructor's role in distance learning**
 - a) **Functions as a facilitator**

Requisite Skills. Oral communication techniques, teaching methods and techniques **of instruction**, and utilization of lesson plans in the **an** instructional setting.

801-4.4.4 Adjust presentation, given a lesson plan and changing circumstances in the class environment, so that class continuity and the objectives or learning outcomes are achieved.

Requisite Knowledge. Methods of dealing with changing circumstances.

- 1) Methods of dealing with changing circumstances
 - a) The Instructor I should be able to adjust to such changing circumstances as the following
 NFPA 1041 A.4.4.4
 - i) Equipment failure
 - ii) Weather
 - iii) Audio and visual distractions
 - iv) Safety
 - v) Limited resources
 - vi) Presentation location
 - vii) Interruptions (e.g. emergency response)
 - b) The Instructor I should **not** alter the content or the lesson objectives in this process.

Requisite Skills. None required.

801-4.4.5 Adjust to differences in learning styles, abilities, **cultures** and behaviors, given the instructional environment, so that lesson objectives are accomplished, disruptive behavior is addressed, and a safe learning environment is maintained.

801-A.4.4.5 Examples of disruptive behavior include, but are not limited to, harassment, abuse, discrimination, disruption of training, horseplay, and a lack of respect for others.

Requisite Knowledge. Motivation techniques, learning styles, types of learning disabilities and methods for dealing with them, and methods of dealing with disruptive and unsafe behavior.

- 1) Factors that could influence the learning process, from NFPA 1041 A.4.4.5(A)
 - a) Attitude
 - b) Experience
 - c) Knowledge
 - d) Education
 - e) Personality
 - f) Physical condition (fatigue, illness, etc.)
 - g) Unsafe behavior

- h) Motivation
 - i) Competing demands for time
- 2) Motivation techniques
- a) Define motivation
 - b) Maslow's Hierarchy of Needs
 - i) Physiological
 - ii) Security
 - iii) Social
 - iv) Self-esteem
 - v) Self-actualization
 - c) Herzberg's Job Enrichment Model
 - i) Dissatisfiers (Hygiene Factors)
 - (1) Relationships
 - (2) Supervision quality
 - (3) Policies and administration
 - (4) Working conditions
 - (5) Personal life
 - ii) Satisfiers (Motivator Factors)
 - (1) Achievement
 - (2) Recognition
 - (3) Work
 - (4) Responsibility
 - (5) Advancement
- 3) Learning styles
- a) Auditory
 - b) Kinesthetic
 - c) Visual
 - d) Tactile
- 4) Types of learning disabilities and methods for dealing with them
- a) Slow learner
 - b) Memory
 - c) Auditory/visual perception
 - d) Oral language
 - e) Speaking, listening, writing difficulties
 - f) Word recognition/comprehension
 - g) Math deficient
 - h) Methods to handle may include:
 - i) Counseling
 - ii) Coaching
 - iii) Peer assistance
 - iv) Mentoring

- 5) Methods of dealing with disruptive and unsafe behavior
 - a) Non-intentionally disruptive learner
 - i) Shy or timid
 - ii) Quiet or bored
 - iii) Uninterested
 - iv) “Intellectual” (knowledgeable, resource for the class)
 - v) “Explorer” (highly motivated to learn, challenges instructor)
 - b) Intentionally disruptive learner
 - i) Talkative and aggressive
 - ii) Show off
 - iii) Fast learner (may become bored or challenge the instructor)
 - iv) “Prisoner” (required attendance)
 - v) “Vacationer” (not interested in learning, but in having a good time elsewhere at someone else’s expense)
 - vi) “Pseudo intellectual” (tries to impress others ... know it all)
 - c) Unsafe behaviors
 - i) Improper use of equipment
 - ii) Not following safety procedures/standards
 - iii) Horseplay
 - d) Methods to handle may include:
 - i) Coaching
 - ii) Use of motivational techniques
 - iii) Discipline
 - iv) Adaptation of lesson plan or materials

Requisite Skills. Basic coaching and motivational techniques, **correction of disruptive behaviors**, and adaptation of lesson plans or materials to specific instructional situations.

- 801-4.4.6 Operate audiovisual equipment and demonstration devices, given a learning environment and equipment, so that the equipment functions properly.

Requisite Knowledge. Components of audiovisual equipment.

- 1) Components of audiovisual equipment
 - a) Visual aids may include, but are not limited to the following:
 - i) Non-projected visuals
 - (1) Pictures
 - (2) Drawings
 - (3) Charts
 - (4) Graphs
 - (5) Maps
 - (6) Posters
 - (7) Flipcharts

- (8) Cutaways
- (9) Models
- (10) Handouts
- (11) Actual objects
- ii) Projected visuals
 - (1) Slides
 - (2) Transparencies
 - (3) Document cameras
- iii) Digital image projection
 - (1) Presentation software (e.g., PowerPoint)
- b) Audio aids may include, but are not limited to the following:
 - i) Audio tapes
 - ii) Audio CDs
 - iii) MP3s
 - ~~iv) Cassettes~~
 - v) Microphones
 - vi) Speakers
 - vii) Amplifiers
- c) Audiovisual aids may include, but are not limited to the following:
 - i) Videotapes
 - ii) DVDs
 - iii) Presentation software (e.g., PowerPoint)
 - iv) CDs
 - v) Simulation software
- d) Other equipment may include, but is not limited to the following:
 - i) Dry erase board
 - ii) Chalk board
 - iii) Electronic copy board
 - iv) Pointing devices
 - v) Timekeeping devices
 - vi) Screens
- e) Set up, usage and storage of audiovisual equipment according to manufacturer's recommendations may include, but is not limited to the following:
 - i) Cleaning lenses, focus/image adjustment (Keystone), power supply, lighting
 - ii) Volume levels
 - iii) Change bulbs
 - iv) Package for storage/transport
 - v) Changing filters
 - vi) Changing batteries
 - vii) Spare batteries
 - viii) Component interface (cables/drivers)
 - ix) Cleaning supplies
 - x) Chalk/markers/erasers

xi) Screens

Requisite Skills. Use of audiovisual equipment, cleaning, and field level maintenance.

801-4.4.7 Utilize audiovisual materials, given prepared topical media and equipment, so that the intended objectives are clearly presented, transitions between media and other parts of the presentation are smooth, and media are returned to storage.

Transitions are the connections between training segments and/or media. They should be:

- Smooth
- Clear
- Concise
- Understandable
- Compatible

Requisite Knowledge. Media types, limitations, and selection criteria.

- 1) Media types, limitations, and selection criteria
 - a) Visual media
 - i) Limitations
 - ii) Selection criteria
 - b) Audio media
 - i) Limitations
 - ii) Selection criteria
 - c) Audiovisual media
 - i) Limitations
 - ii) Selection criteria
 - d) Other media types
 - i) Limitations
 - ii) Selection criteria

Requisite Skills. Transition techniques within and between media.

801-4.5 **Evaluation and Testing**

801-4.5.1 **Definition of Duty.** The administration and grading of student evaluation instruments.

801-A.4.5.1 This duty primarily deals with student evaluation; however, the Instructor I could be required to conduct program evaluations according to policies and procedures.

801-4.5.2 Administer oral, written, and performance tests, given the lesson plan, evaluation instruments, and the evaluation procedures of the agency, so that **bias or discrimination is eliminated**, the testing is conducted according to procedures and the security of the materials is maintained.

Requisite Knowledge. Test administration, agency policies, **laws and policies pertaining to discrimination during training and testing, methods for eliminating testing bias**, laws affecting records and disclosure of training information, purposes of evaluation and testing, and performance skills evaluation.

1) Test administration

a) Oral

- i) Environmental preparation
- ii) Eliminating bias
- iii) Reducing test anxiety
- iv) Security
- v) Procedures
- vi) Test materials

b) Written

- i) Environmental preparation
- ii) Eliminating bias
- iii) Reducing test anxiety
- iv) Security
- v) Procedures
- vi) Test materials

c) Performance

- i) Environmental preparation
- ii) Eliminating bias
- iii) Reducing test anxiety
- iv) Security
- v) Procedures
- vi) Safety
- vii) Equipment and supplies
- viii) Test materials

2) Agency policies

- a) Oral testing
- b) Written testing
- c) Performance testing
- d) Record keeping

3) **Laws and policies pertaining to discrimination during training and testing**

a) **Federal**

- b) **State**
 - c) **Local**
- 4) **Methods for eliminating testing bias**
- a) **Identify bias**
 - b) **Report bias (AHJ)**
 - c) **Avoid bias**
- 5) Laws affecting records and disclosure of training information
- a) Federal
 - i) Family Educational Rights and Privacy Act (FERPA)
 - ii) Occupational Safety and Health Administration (OSHA)
 - b) State
 - i) Texas Commission on Fire Protection (TCFP)
 - ii) Texas Commission on Law Enforcement Officer Standards and Education (TCLEOSE)
 - iii) Texas Department of State Health Services (DSHS)
 - c) Local
 - i) AHJ (e.g., civil service, public health authority, local ordinance)
- 6) Purposes of evaluation and testing
- a) Determine if objectives are met
 - b) Feedback
 - i) To students
 - ii) To instructors
 - c) Student motivation
 - d) Instructor effectiveness
- 7) Performance skills evaluation
- a) Verifies Job Performance Requirements (JPRs)

Requisite Skills. Use of skills checklists and oral questioning techniques.

801-4.5.3 Grade student oral, written, or performance tests, given class answer sheets or skills checklists and appropriate answer keys, so the examinations are accurately graded and properly secured.

Requisite Knowledge. Grading **methods, methods for eliminating bias during grading,** and maintaining confidentiality of scores.

- 1) Grading techniques **methods**
 - a) Manual grading
 - i) Verify correct answer key
 - ii) Tabulate results

- b) Optical mark readers
 - i) Familiarization with grading equipment
 - ii) Verify correct answer key
 - iii) Tabulate results
- c) Computer based
 - i) Familiarization with grading equipment
 - ii) Verify correct answer key
 - iii) Tabulate results
- d) Consistency
 - i) Elimination of bias
 - ii) Fairness
 - iii) Uniform application of grading criteria
- e) Security
 - i) Evaluation instrument (e.g., exam, skill sheet)
 - ii) Answer key

2) Methods for eliminating bias during grading

- a) **Identify bias**
- b) **Report bias (AHJ)**
- c) **Avoid bias**

- 3) Confidentiality of scores
 - a) Individual
 - b) Group

Requisite Skills. None required.

801-4.5.4 Report test results, given a set of test answer sheets or skills checklists, a report form, and policies and procedures for reporting, so that the results are accurately recorded, the forms are forwarded according to procedure, and unusual circumstances are reported.

Requisite Knowledge. Reporting procedures and the interpretation of test results.

- 1) Reporting procedures
 - a) Recording results
 - i) Written
 - ii) Electronic
 - b) Reporting results
 - i) Unusual circumstances noted
 - ii) Forward results according to local procedure
- 2) The interpretation of test results
 - a) Follows grading guidelines

- b) Determines pass/fail
- c) Determines need for retest
- d) Notes trends

Requisite Skills. Communication skills and basic coaching.

801-4.5.5 Provide evaluation feedback to students, given evaluation data, so that the feedback is timely; specific enough for the student to make efforts to modify behavior; and objective, clear, and relevant; also include suggestions based on the data.

801-A.4.5.5 The Instructor I is expected to be able to assess student test results and identify areas requiring additional study and communicate this information to the student.

Requisite Knowledge. Reporting procedures and the interpretation of test results.

- 1) Reporting procedures
 - a) Explain grading criteria
 - b) Report results to examinee(s) in a timely manner
 - c) Individual score
 - d) Range of scores
 - e) Number of passing scores
- 2) The interpretation of test results
 - a) Provide evaluation feedback
 - i) Timely
 - ii) Objective
 - iii) Clear
 - iv) Specific
 - v) Relevant
 - b) Recognize outstanding performance
 - c) Make suggestions for improvement as needed

Requisite Skills. Communication skills and basic coaching.

REFERENCE LIST FOR THE FIRE INSTRUCTOR II CURRICULUM

Fire and Emergency Services Instructor (8th ed.). (2012). Stillwater, OK: International Fire Service Training Association, Oklahoma State University.

Fire Service Instructor: Principles and Practice (2nd ed.). (2014). Burlington, MA: Jones and Bartlett Learning.

NFPA 1041: Standard for Fire Service Instructor Professional Qualifications (2012 ed.). Quincy, MA: National Fire Protection Association. NFPA Publications.

NFPA 1401: Recommended Practice for Fire Service Training Reports and Records (2012 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association.

NFPA 1403: Standard on Live Fire Training Evolutions (2012 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association.

Standards Manual for Fire Protection Personnel. Austin, TX: Texas Commission on Fire Protection.

CHAPTER EIGHT
FIRE INSTRUCTOR II
CURRICULUM OUTLINE

SECTION	SUBJECT	RECOMMENDED HOURS
802-5.1	General	1
802-5.2	Program Management	16
802-5.3	Instructional Development	12
802-5.4	Instructional Delivery	7
802-5.5	Evaluation and Testing	12
	TOTAL RECOMMENDED HOURS	48

SECTION 802

FIRE INSTRUCTOR II

A Fire Instructor II is a fire service instructor who, in addition to meeting Instructor I qualifications, has demonstrated the knowledge and ability to:

- **Develop individual lesson plans** for a specific topic including learning objectives, instructional aids, and evaluation instruments
- **Schedule training sessions** based on overall training plan of the authority having jurisdiction (AHJ)
- **Supervise and coordinate the activities of other instructors**

802-5.1 General

For certification at Level II, the Fire Instructor I shall meet the job performance requirements (JPRs) defined in Sections 802-5.2 through 802-5.5 of this standard.

802-5.2 Program Management

802-5.2.1 **Definition of Duty.** The management of instructional resources, staff, facilities, and records and reports.

802-5.2.2 Schedule instructional sessions, given department scheduling policy, instructional resources, staff, facilities, and timeline for delivery, so that the specified sessions are delivered according to department policy.

Requisite Knowledge. Departmental policy, scheduling processes, supervision techniques, and resource management.

- 1) Types of training schedules
 - a) Periodic training schedule/station training
 - b) Periodic training schedule/training facility activities
 - c) All other training
 - i) Recruit
 - ii) In-service
 - iii) Special
 - iv) Officer
 - v) Advanced
 - vi) Mandated
- 2) Departmental policy
 - a) Staffing levels (e.g., overtime issues; in service versus out of service – emergency response availability)

- b) Mandated versus non-mandated training
- 3) Scheduling processes
 - a) Shift scheduling
 - b) Administrative
 - c) Support personnel
 - d) Knowledge of class offering
 - i) Time and place
 - ii) Prerequisites
 - iii) Resources: websites, brochures, catalogs
- 4) Supervision techniques
 - a) Selection of instructional staff
 - i) Lead instructors
 - ii) Assistant instructors
 - iii) Examiners or proctors
- 5) Resource management
 - a) Facilities
 - b) Materials and supplies
 - c) Prop acquisition
 - d) Apparatus status (emergency response availability)

Requisite Skills. None required.

802-5.2.3 Formulate budget needs, given training goals, agency budget policy, and current resources, so that the resources required to meet training goals are identified and documented.

Requisite Knowledge. Agency budget policy, resources management, needs analysis, sources of instructional materials, and equipment.

- 1) Agency budget policy
 - a) Meet timelines
 - b) Comply with approval process
 - c) Justify requests
- 2) Resource management
 - a) Facilities
 - b) Apparatus
 - c) Equipment
 - d) Supplies
- 3) Needs analysis
 - a) Identify need for training

- i) External mandates
 - ii) Departmental goals (short-term and long-term)
 - iii) Correct deficiencies
 - iv) Maintain proficiency
- b) Determine solution
- c) Costs for implementation
 - i) Personnel
 - ii) Facilities
 - iii) Equipment
 - iv) Supplies
 - v) Contingency
- 4) Sources of instructional materials and equipment
 - a) Publishers
 - b) Government publications
 - c) Manufacturers
 - d) Associations
 - e) Educational institutions
 - f) Websites

Requisite Skills. Resource analysis and forms completion.

802-5.2.4 Acquire training resources, given an identified need, so that the resources are obtained within established timelines, budget constraints, and according to agency policy.

Requisite Knowledge. Agency policies, purchasing procedures, and budget management.

- 1) Agency policies
 - a) Knowledge of agency policies and procedures
 - b) Rules and regulations
- 2) Purchasing procedures (acquisition procedures)
 - a) Identify product or service
 - b) Identify supplier
 - c) Follow requisition procedures
 - d) Follow approval path
 - e) Confirm delivery
- 3) Budget management
 - a) Budget constraints
 - b) Track expenditures
 - c) Amendments

Requisite Skills. Forms completion.

- 802-5.2.5 Coordinate training record-keeping, given training forms, department policy, and training activity, so that all agency and legal requirements are met.

Requisite Knowledge. Record-keeping processes, departmental policies, laws affecting records and disclosure of training information, professional standards applicable to training records, and databases used for record-keeping.

- 1) Types of training records

NFPA 1401

 - a) Departmental training record
 - b) Individual special course record
 - c) Individual training record
 - d) Progress chart
 - e) Certification training record (Firefighter)
 - f) Educational courses
 - g) Vocational courses
 - h) Seminars and other training
 - i) Periodic company summary
 - j) Chief officers' periodic training summary
 - k) Group training records and evaluation
- 2) Record keeping processes
 - a) Electronic
 - b) Paper-based (hard copy)
- 3) Departmental policies
 - a) Record retention
 - b) Security
 - c) Tracking
- 4) Laws affecting records and disclosure of training information
 - a) Federal
 - i) Family Educational Rights and Privacy Act (FERPA)
 - ii) Occupational Safety and Health Administration (OSHA)
 - b) State
 - i) Texas Commission of Fire Protection (TCFP)
 - ii) Texas Commission on Law Enforcement Officer Standards and Education (TCLEOSE)
 - iii) Texas Department of State Health Services (DSHS)
 - c) Local – AHJ (e.g., civil service, public health authority, local ordinance)

- 5) Professional standards applicable to training records
 - a) Detailed to enable factual reporting, while remaining as simple as possible
 - b) Kept to a minimum to avoid confusion and duplication of effort
 - c) Secured and confidential

- 6) Databases used for record keeping
 - a) Cost effective method of processing comprehensive data
 - b) Allow for report generation
 - c) Allow quick access to data
 - d) Improve security
 - e) Decrease storage space problems
 - f) Maintain back up records

Requisite Skills. Record auditing procedures.

802-5.2.6 Evaluate instructors, given an evaluation form, department policy, and job performance requirements (JPRs), so that the evaluation identifies areas of strengths and weaknesses, recommends changes in instructional style and communication methods, and provides opportunity for instructor feedback to the evaluator.

Requisite Knowledge. Personnel evaluation methods, supervision techniques, department policy, and effective instructional methods and techniques.

- 1) Personnel evaluation methods
 - a) Observation
 - b) Student feedback
 - c) Student performance
 - d) Instructor characteristics
 - i) Ability
 - ii) Knowledge
 - iii) Experience
 - iv) Instructional methods
 - v) Organization

- 2) Supervision techniques
 - a) Directing
 - b) Coaching
 - c) Supporting
 - d) Delegating

- 3) Department policy

- a) Knowledge of departmental policies and procedures, rules and regulations
- 4) Effective instructional methods and techniques
 - a) Lecture
 - b) Discussion
 - c) Illustration
 - d) Demonstration

Requisite Skills. Coaching, observation techniques, and completion of evaluation forms.

802-5.3 **Instructional Development**

802-5.3.1 **Definition of Duty.** The development of instructional materials for specific topics.

802-5.3.2 Create a lesson plan, given a topic, audience characteristics, and a standard lesson plan format, so the ~~job performance requirements~~ **JPRs or learning objectives** for the topic are ~~achieved~~ **addressed**, and the plan includes learning objectives, a lesson outline, course materials, instructional aids, and an evaluation plan.

Requisite Knowledge. Elements of a lesson plan, components of learning objectives, ~~instructional methods and techniques~~ **of instruction**, characteristics ~~principles~~ of adult learners **learning, techniques for eliminating bias in instructional materials**, types and application of instructional media, evaluation techniques, and sources of references and materials.

- 1) Elements of a lesson plan
 - a) Job title or topic
 - b) Level of instruction
 - c) JPRs, behavioral objectives, performance objectives, or learning outcomes
 - d) Instructional materials needed
 - e) References
 - f) Preparation step (motivation)
 - g) Presentation step
 - h) Application step
 - i) Lesson summary
 - j) Evaluation step
 - k) Assignment
- 2) Components of learning objectives

- a) Audience (**may be implied**)
 - b) Behavior **statement**
 - c) Conditions **description**
 - d) Degree (**standards criteria**)
- 3) Instructional Methods and techniques **of instruction**
(i.e., uses, advantages, disadvantages, and limitations/requirements)
- a) Lecture
 - b) Demonstration
 - c) Illustration
 - d) Directed activity
 - e) Oral questioning
 - i) Overhead
 - ii) Rhetorical
 - iii) Relayed
 - iv) Directed
 - f) Discussion
 - g) Reading
 - h) Individualized instruction
 - i) Role-play
 - j) Case studies
 - k) Conference
 - l) Brainstorming
 - m) Team teaching
 - n) Mentoring
- 4) Characteristics **Principles** of adult learners **learning** (Malcolm Knowles)
- a) Autonomous and self-directed
 - b) Personal experience and knowledge
 - c) Goal oriented
 - d) Relevancy oriented
 - e) Practical
 - f) Need for respect
- 5) **Techniques for eliminating bias in instructional materials**
- a) **Adhere very closely to the source material that is being taught**
 - b) **Be very careful in the wording used (i.e. gender neutral)**
 - c) **Avoid references to specific cultural backgrounds and stereotypes**
- 6) Types and application of instructional media
- a) Visual aids
 - b) Audio aids
 - c) Audiovisual aids

- 7) Evaluation techniques
 - a) Written
 - b) Performance
 - c) Role-play

- 8) Sources of references and materials
 - a) Publishers
 - b) Government publications
 - c) Manufacturers
 - d) Associations
 - e) Educational institutions
 - f) websites

Requisite Skills. Basic research, using JPRs to develop behavioral objectives, student needs assessment, development of instructional media, outlining techniques, evaluation techniques, and resource needs analysis.

- 802-5.3.3 Modify an existing lesson plan, given a topic, audience characteristics, and a lesson plan, so that the ~~job performance requirements~~ **JPRs** or learning objectives for the topic are ~~achieved~~ **addressed** and the plan includes learning objectives, a lesson outline, course materials, instructional aids, and an evaluation plan.

Requisite Knowledge. Elements of a lesson plan, components of learning objectives, instructional methods and techniques of **instruction**, characteristics **principles** of adult **learners learning, techniques for eliminating bias in instructional materials**, types and application of instructional media, evaluation techniques, and sources of references and materials.

- 1) Elements of a lesson plan – from NFPA 1041 A.4.3.3(A)
 - a) Lesson title or topic
 - b) Level of instruction
 - c) Behavioral objectives, performance objectives, or learning outcomes
 - d) Instructional materials needed
 - e) References/resources
 - f) Preparation step (motivation)
 - g) Presentation step
 - h) Application step
 - i) Lesson summary
 - j) Evaluation step
 - k) Assignment

- 2) Components of learning objectives
 - a) Audience **(may be implied)**
 - b) Behavior **statement**
 - c) Conditions **description**
 - d) Degree **(standards criteria)**

- 3) ~~Instructional~~ Methods and techniques **of instruction**
 - a) Lecture
 - b) Demonstration
 - c) Illustration
 - d) Directed activity
 - e) Oral questioning
 - i) Overhead
 - ii) Rhetorical
 - iii) Relayed
 - iv) Directed
 - f) Discussion
 - g) Reading
 - h) Individualized instruction
 - i) Role-play
 - j) Case studies
 - k) Conference
 - l) Brainstorming
 - m) Team teaching
 - n) Mentoring

- 4) Characteristics **Principles** of adult learners **learning** (Malcolm Knowles)
 - a) Autonomous and self-directed
 - b) Personal experience and knowledge
 - c) Goal oriented
 - d) Relevancy oriented
 - e) Practical
 - f) Need for respect

- 5) **Techniques for eliminating bias in instructional materials**
 - a) **Adhere very closely to the source material that is being taught**
 - b) **Be very careful in the wording used (i.e. gender neutral)**
 - c) **Avoid references to specific cultural backgrounds and stereotypes**

- 6) Types and application of instructional media
 - a) Visual aids
 - b) Audio aids

- c) Audiovisual aids
- 7) Evaluation techniques
 - a) Written
 - b) Performance
 - c) Role-play
- 8) Sources of references and materials
 - a) Publishers
 - b) Government publications
 - c) Manufacturers
 - d) Associations
 - e) Educational institutions
 - f) Websites

Requisite Skills. Basic research, using JPRs to develop behavioral objectives, student needs assessment, development of instructional media, outlining techniques, evaluation techniques, and resource needs analysis.

802-5.4 **Instructional Delivery**

802-5.4.1 **Definition of Duty.** Conducting classes using a lesson plan.

802-5.4.2 Conduct a class using a lesson plan that the instructor has prepared and that involves the utilization of multiple teaching methods and techniques, given a topic and a target audience, so that the lesson objectives are achieved.

Requisite Knowledge. Use and limitations of teaching methods and techniques.

- 1) Use a limitations of teaching methods and techniques
 - a) Audiences with advanced knowledge or experience
 - b) Problem solving
 - c) Reaching group solution
 - d) Reaching group consensus

Requisite Skills. Transition between different teaching methods.

802-A.5.4.2(B). The Instructor II should acquire skills to effectively utilize problem-solving techniques, to facilitate and lead conferences, and to use discussion methods of presentation. These techniques are frequently used to conduct small group sessions where participants have advanced

knowledge and experience in the subject matter and the goal is to reach a group solution to a problem or issue.

802-5.4.3 Supervise other instructors and students during training, given a training scenario with increased hazard exposure, so that applicable safety standards and practices are followed, and instructional goals are met.

802-A.5.4.3 Examples of increased hazard exposure training include live fire exercises, hazardous materials, above and below graded rescue, and evolutions that involve the use of power tools. See Annex C or NFPA 1403, *Standard on Live Fire Training Evolutions*, for information regarding the responsibilities of personnel involved in live fire training evolutions.

Requisite Knowledge. Safety rules, regulations, and practices; the incident command system used by the agency; and leadership techniques.

- 1) Safety rules
 - a) Department/organizational safety rules
 - b) Student/instructor ratio
 - c) Apparatus/instructor ratio
 - d) Personal protective equipment (PPE)
- 2) Regulations and practices
 - a) Occupational Safety and Health Administration (OSHA)
 - b) National Fire Protection Association (NFPA)
 - i) NFPA 1403 Annex C
 - (1) Instructor-In-Charge
 - (2) Safety Officer
 - (3) Instructor
 - (4) Student
 - ii) Applicable NFPA Standards for increased hazard training (e.g., Hazardous Materials, Rescue, Driver/Operator, Diver)
 - c) TCFP Rule 427.18 – Live Fire Training Evolutions
- 3) The incident command system used by the agency
 - a) Department/organizational incident management policy
 - b) National Incident Management System (NIMS)
- 4) Leadership techniques
 - a) Lead by example
 - b) Coaching/mentoring
 - c) Command presence (When in charge, take charge)
 - d) Image

Requisite Skills. Implementation of an incident management system used by the agency.

802-5.5 **Evaluation and Testing**

802-5.5.1 **Definition of Duty.** The development of student evaluation instruments to support instruction and the evaluation of test results.

802-5.5.2 Develop student evaluation instruments, given learning objectives, audience characteristics, and training goals, so that the evaluation instrument determines if the student has achieved the learning objectives; the instrument evaluates **relative** performance in an objective, reliable, and verifiable manner; and the evaluation instrument is bias-free to any audience or group.

Requisite Knowledge. Evaluation methods, development of forms, effective instructional methods, and techniques.

- 1) Evaluation methods
 - a) Classification of tests
 - i) Criterion-referenced
 - ii) Norm-referenced
 - iii) Prescriptive
 - iv) Progress (formative)
 - v) Comprehensive (summative)
 - b) Administration
 - i) Oral
 - ii) Written
 - iii) Performance
 - c) Objective
 - i) Recognition
 - ii) Recall
 - d) Subjective
 - i) Performance
 - ii) Essay
 - e) Characteristics of good tests
 - i) Objective
 - (1) Non-biased
 - (2) Measurable
 - ii) Valid
 - iii) Reliable
 - iv) Comprehensive
 - v) Convenient
- 2) Development of forms

a) Test instruments should include instructions, a sample response, questions, a method of recording answers, scoring and documentation of results for the following written and oral test types.

i) Written tests

- (1) True/false
- (2) Multiple choice
- (3) Matching
- (4) Short answer
- (5) Fill in the blank
- (6) Pictorial recall
- (7) Essay

ii) Oral tests

iii) Performance evaluation (Skills Testing)

- (1) Reviewing the objectives
- (2) Identifying the steps
- (3) Identifying safety points
- (4) Determining the mastery standard
- (5) Establishing rating factors
- (6) Determining grading criteria
- (7) Preparing instructions for students and evaluator

3) Effective instruction methods

a) Evaluation process

- i) Criteria
- ii) Evidence
- iii) Judgment

4) Techniques

a) Administering evaluations

- i) Maintain integrity of test
- ii) Take test to ensure correct answer key
- iii) Adhere to schedule if timed
- iv) Establish procedures for trainees to ask questions
- v) Require trainees to return all tests
- vi) Posting of grades requires prior written permission of trainees (FERPA)

b) Procedures for written tests

- i) Notify of test in advance
- ii) Test immediately after subject is completed
- iii) Mark incorrect answers on test
- iv) Review and discuss with students
- v) Study incorrect answers – item analysis
- vi) Put grades on paper and notify student
- vii) Revise teaching methods/materials if indicated

- c) Procedures for performance evaluations
 - i) Notify of test in advance
 - ii) Ensure equipment is working properly
 - iii) Have area and materials set up
 - iv) Follow all safety procedures
 - v) Be sure trainee understands task
 - vi) Check off each step on performance evaluation form – never sign off unless **you** have seen it done
 - vii) Insure fairness to all trainees
 - viii) Maintain ethical conduct
 - ix) Verify competency and determine if objective has been met
 - x) Revise teaching methods/materials if indicated

Requisite Skills. Evaluation item construction and assembly of evaluation instruments.

- 802-5.5.3 Develop a class evaluation instrument, given agency policy and evaluation goals, so that students have the ability to provide feedback to the instructor on instructional methods, communication techniques, learning environment, course content, and student materials.

Requisite Knowledge. Evaluation methods and test validity.

- 1) Evaluation methods
 - a) Formative evaluation
 - i) Field testing
 - ii) Observation
 - b) Summative evaluation
 - i) Course feedback
 - ii) Using evaluation results
 - (1) Determine cause of failure
 - (2) Identify actions to correct
 - (3) Document and report results
- 2) Test validity
 - a) Extent to which a test measures what it is supposed to measure
 - b) Validation process

Requisite Skills. Development of evaluation forms.

Below - 5.5.4 is no longer in chapter 5 of NFPA 1041. This material was moved to Chapter 6 (Instructor III), 6.5.5.

~~802-5.5.4 Analyze student evaluation instruments, given test data, objectives and agency policies, so that validity is determined and necessary changes are accomplished.~~

Requisite Knowledge: ~~Test validity, reliability, and item analysis.~~

~~1) Test validity~~

- ~~a) A valid test requires the learner to perform the same behavior under the same conditions specified in the instructional objective~~
- ~~b) Match test item to the objective~~
- ~~c) Test only skills that relate to the objective~~
- ~~d) Test at proper learning level~~
- ~~e) No tricks~~
- ~~f) Subjects weighted and distributed properly~~
- ~~g) Accurate predictor of field performance~~

~~2) Reliability~~

- ~~a) A reliable test provides a consistent measure of a student's ability to demonstrate achievement of an objective~~
- ~~b) Contains no clues~~
- ~~c) Distractors are realistic~~
- ~~d) Order of answers is random~~
- ~~e) Is written clearly~~
- ~~f) Uses negatives carefully~~

~~3) Item analysis~~

- ~~a) Determine percentage of students who missed the question~~
- ~~b) Determine why question was missed~~
- ~~c) Revise question or instruction as necessary~~

REFERENCE LIST FOR THE FIRE INSTRUCTOR III CURRICULUM

Fire and Emergency Services Instructor (8th ed.). (2012). Stillwater, OK: International Fire Service Training Association, Oklahoma State University.

Fire Service Instructor: Principles and Practice (2nd ed.). (2014). Burlington, MA: Jones and Bartlett Learning.

NFPA 1041: Standard for Fire Service Instructor Professional Qualifications (2012 ed.). Quincy, MA: National Fire Protection Association. NFPA Publications.

NFPA 1401: Recommended Practice for Fire Service Training Reports and Records (2012 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association.

NFPA 1403: Standard on Live Fire Training Evolutions (2012 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association.

Standards Manual for Fire Protection Personnel. Austin, TX: Texas Commission on Fire Protection.

CHAPTER EIGHT
FIRE INSTRUCTOR III
CURRICULUM OUTLINE

SECTION	SUBJECT	RECOMMENDED HOURS
803-6.1	General	1
803-6.2	Program Management	15
803-6.3	Instructional Development	32
803-6.4	Instructional Delivery	0
803-6.5	Evaluation and Testing	16
	TOTAL RECOMMENDED HOURS	64

SECTION 803

FIRE INSTRUCTOR III

A Fire Instructor III is a fire service instructor who, in addition to meeting Instructor II qualifications, has demonstrated the knowledge and ability to:

- **develop comprehensive training curriculum and programs** for use by single or multiple organizations
- **conduct organization needs analysis**
- **develop training goals and implementation strategies**

803-6.1 General

For certification at Level III, the Fire Instructor II shall meet the job performance requirements (JPRs) defined in Sections 803-6.2 through 803-6.5 of this standard.

803-6.2 Program Management

803-6.2.1 **Definition of Duty.** The administration of agency policies and procedures for the management of instructional resources, staff, facilities, records, and reports.

803-6.2.2 Administer a training record system, given agency policy and type of training activity to be documented, so that the information captured is concise, meets all agency and legal requirements, and can be readily accessed.

803-A.6.2.2 See NFPA 1401, *Recommended Practice for Fire Service Training Reports and Records*.

Requisite Knowledge. Agency policy, record-keeping systems, professional standards addressing training records, legal requirements affecting record-keeping, and disclosure of information.

- 1) Agency policy – Authority having jurisdiction (AHJ)
- 2) Record-keeping systems
 - a) Electronic
 - b) Paper
- 3) Professional standards addressing training records – NFPA 1401

- 4) Legal requirements affecting record keeping, and disclosure of information
 - a) Federal
 - b) State
 - c) Local

Requisite Skills. Development of forms and report generation.

- 803-6.2.3 Develop recommendations for policies to support the training program, given agency policies and procedures and the training program goals, so that the training and agency goals are achieved.

Requisite Knowledge. Agency procedures and training program goals, and format for agency policies.

- 1) Agency procedures and training program goals
 - a) Training program goals
 - i) Required training (e.g., state certification)
 - ii) Maintenance training (e.g., continuing education)
 - iii) Implementing change training (e.g., updated safety policy)
 - iv) Professional development program (e.g., career advancement/enhancement)
 - b) Types of policies and procedures
 - i) Standard operating procedures (SOPs)
 - ii) Standard operating guidelines (SOGs)
 - iii) Administrative policies and procedures
 - c) Policy and procedure development process
 - i) Identifying a need
 - ii) Revision
 - iii) Adoption
 - iv) Implementation
 - v) Evaluation
- 2) Format for agency policies
 - a) Standardized appearance
 - b) Standardized data collection
 - c) Authority Having Jurisdiction AHJ

Requisite Skills. Technical writing.

- 803-6.2.4 Select instructional staff, given personnel qualifications, instructional requirements, and agency policies and procedures, so that staff selection meets agency policies and achievement of agency and instructional goals.

Requisite Knowledge. Agency policies regarding staff selection, instructional requirements, selection methods, the capabilities of instructional staff, and agency goals.

- 1) Agency policies regarding staff selection – AHJ
- 2) Instructional requirements
 - a) Certifications
 - b) Experience
 - c) Education
 - d) Qualifications
 - e) Communication skills
 - f) Credibility
- 3) Selection methods
 - a) Application packet
 - i) Cover letter
 - ii) Resume
 - iii) Application
 - iv) Supporting documents
 - b) Interview
 - c) Evaluation
 - i) Knowledge-based
 - ii) Skill-based
- 4) The capabilities of instructional staff
 - a) Subject matter expertise
 - i) Knowledge levels
 - ii) Skill levels
 - b) Interpersonal dynamics
 - i) Supervisors
 - ii) Coworkers
 - iii) Subordinates
 - iv) Students
 - v) Public
- 5) Agency goals
 - a) Needs-based instructor selection

Requisite Skills. Evaluation techniques.

- 803-6.2.5 Construct a performance-based instructor evaluation plan, given agency policies and procedures and job requirements, so that instructors are evaluated at regular intervals, following agency policies.

Requisite Knowledge. Evaluation methods, agency policies, staff schedules, and job requirements.

- 1) Evaluation methods
 - a) Observation
 - b) Student feedback
 - c) Analysis of performance measures (e.g., pass/fail rates, test scores)
 - d) Critiquing instructor performance
 - i) Positive comments
 - ii) Areas needing improvement
 - iii) Comments should refer to specific behaviors
 - iv) Schedule a follow up meeting
- 2) Agency policies – AHJ
- 3) Staff schedules
- 4) Job requirements - AHJ

Requisite Skills. Evaluation techniques.

803-6.2.6 Write equipment purchasing specifications, given curriculum information, training goals, and agency guidelines, so that the equipment is appropriate and supports the curriculum.

Requisite Knowledge. Equipment purchasing procedures, available department resources, and curriculum needs.

- 1) Curriculum needs
 - a) Identification
 - b) Specifications
- 2) Available department resources
 - a) Budget
 - b) Equipment
- 3) Equipment purchasing procedures
 - a) Market research
 - b) Resource locations
 - c) Specification development
 - d) Competitive pricing
 - e) Other agency procedures

Requisite Skills. Evaluation methods to select the equipment that is most effective and preparations of procurement forms.

- 803-6.2.7 Present evaluation findings, conclusions, and recommendations to agency administrator, given data summaries and target audience, so that recommendations are unbiased, supported, and reflect agency goals, policies, and procedures.

Requisite Knowledge. Statistical evaluation procedures and agency goals.

- 1) Statistical evaluation procedures
 - a) Agency needs analysis
 - b) Data analysis
 - c) Elimination of bias
 - d) Control of variables
 - e) Qualitative data
 - f) Quantitative data

- 2) Agency goals

Requisite Skills. Presentation skills and report preparation following agency guidelines.

803-6.3 **Instructional Development**

- 803-6.3.1 **Definition of Duty.** Plans, develops, and implements comprehensive programs and curricula.

- 803-6.3.2 Conduct an agency needs analysis, given agency goals, so that instructional needs are identified **and solutions are recommended.**

Requisite Knowledge. Needs analysis, task analysis, development of JPRs, lesson planning, instructional methods **for classroom, training ground, and distance learning**, characteristics of adult learners, instructional media, curriculum development, and development of evaluation instruments.

- 1) Needs analysis
 - a) Organizational
 - b) Personnel
 - c) ADDIE model
 - i) Analyze
 - ii) Design
 - iii) Develop

- iv) Implement
- v) Evaluate

2) Task analysis

a) Formal methods

- i) Carefully designed and executed surveys
- ii) Opinion polls
- iii) Checklists
- iv) Observations
- v) Psychological profiles
- vi) Research analyses
- vii) tests

b) Informal methods

- i) Conversations
- ii) Casual observations of activities and habits
- iii) Other unobtrusive measures

3) Development of JPRs

- a) Task to be performed
- b) Tools, equipment, or materials that should be provided to successfully complete the task
- c) Evaluation parameters and/or performance outcomes
- d) Requisite knowledge
- e) Requisite skills

4) Lesson planning

- a) Considerations from the training curriculum and program management perspective
- b) Impact of lesson planning on curriculum development
 - i) Fiscal impact
 - ii) Performance impact

5) Instructional methods for classroom, training ground, and distance learning

- a) Considerations from the training curriculum and program management perspective
- b) Impact of various instructional methods on curriculum development
 - i) Fiscal impact
 - ii) Performance impact

6) Characteristics of adult learners

- a) Considerations from the training curriculum and program management perspective
- b) Impact of adult learner characteristics on curriculum development
 - i) Fiscal impact

- ii) Performance impact
- 7) Instructional media
 - a) Impact of instructional media on curriculum development
 - i) Fiscal impact
 - ii) Performance impact
- 8) Curriculum development
 - a) Converting JPRs into instructional objectives to clarify performance expectations
 - i) Designate or develop reference material
 - ii) Knowledge objectives
 - iii) Skill objectives
 - (1) Skills checklist
- 9) Development of evaluation instruments
 - a) Considerations from the training curriculum and program management perspective
 - b) Impact of evaluation instruments on curriculum development
 - i) Fiscal impact
 - ii) Performance impact

Requisite Skills. Conducting research, committee meetings, and needs and task analysis; organizing information into functional groupings; and interpreting data.

803-6.3.3 Design programs or curricula, given needs analysis and agency goals, so that the agency goals are supported, the knowledge and skills are job-related, the design is performance-based, adult learning principles are utilized, and the program meets time and budget constraints.

Requisite Knowledge. Instructional design, adult learning principles, principles of performance-based education, research, and fire service terminology.

- 1) Instructional design
 - a) Systematic approach to the development of a program to meet instructional needs and goals
- 2) Adult learning principles
 - a) Characteristics of adult learners (Malcolm Knowles)
 - i) Autonomous and self-directed
 - ii) Personal experience and knowledge
 - iii) Goal oriented
 - iv) Relevancy oriented

- v) Practical
 - vi) Need for respect
 - b) Application of adult learning principles
- 3) Principles of performance-based education
 - a) Measures achievement of objectives by performing actions
 - b) Components of performance-based education
 - i) Curriculum
 - ii) Instructional material
 - iii) Student assessment
 - iv) Instructional practice
 - v) Student/system accountability
 - 4) Research
 - a) Choose topic
 - b) Organize topic into specific items
 - c) Identify research sources
 - d) Collect and review information
 - e) Process or prepare information to support instruction needs
 - f) Refresh information as needed
 - 5) Fire service terminology
 - a) Utilize common fire service terminology

Requisite Skills. Technical writing and selecting course reference materials.

803-6.3.4 Modify an existing curriculum, given the curriculum, audience characteristics, learning objectives, instructional resources, and agency training requirements, so that the curriculum meets the requirements of the agency, and the learning objectives are achieved.

Requisite Knowledge. Instructional design, adult learning principles, principles of performance-based education, research, and fire service terminology.

- 1) Instructional design (modification from the training curriculum and program management perspective)
 - a) Systematic approach to the development of a program to meet instructional needs and goals
- 2) Adult learning principles
 - a) Characteristics of adult learners (Malcolm Knowles)
 - i) Autonomous and self-directed
 - ii) Personal experience and knowledge

- iii) Goal oriented
 - iv) Relevancy oriented
 - v) Practical
 - vi) Need for respect
- b) Application of adult learning principles
- 3) Principles of performance-based education
 - a) Measures achievement of objectives by performing actions
 - b) Components of performance-based education
 - i) Curriculum
 - ii) Instructional material
 - iii) Student assessment
 - iv) Instructional practice
 - v) Student/system accountability
- 4) Research
 - a) Choose topic
 - b) Organize topic into specific items
 - c) Identify research sources
 - d) Collect and review information
 - e) Process or prepare information to support instruction needs
 - f) Refresh information as needed
- 5) Fire service terminology
 - a) Utilize common fire service terminology

Requisite Skills. Technical writing and selecting course reference materials.

803-6.3.5 Write program and course goals, given JPRs and needs analysis information, so that the goals are clear, concise, measurable, and correlate to agency goals.

Requisite Knowledge. Components and characteristics of goals, and correlation of JPRs to program and course goals.

- 1) Components and characteristics of goals
 - a) Goal theory
 - i) Specific better than vague
 - ii) Must be committed to goal
 - iii) Must be challenging but attainable
 - b) Clear
 - c) Concise
 - d) Measurable
 - e) Correlated to agency goals

- f) Describes the desired outcome of a given course
- 2) Correlation of JPRs to program and course goals
 - a) Review needs analysis information
 - b) Identify program and course needs
 - c) Develop course goals to meet identified needs using the JPRs

Requisite Skills. Writing goal statements.

803-6.3.6 Write course objectives, given JPRs, so that objectives are clear, concise, measurable, and reflect specific tasks.

Requisite Knowledge. Components of objectives and correlation between JPRs and objectives.

- 1) Components of objectives
 - a) Audience (**may be implied**)
 - b) Behavior **statement**
 - c) Conditions **description**
 - d) Degree (**standards criteria**)
- 2) Correlation between JPRs and objectives
 - a) Develop course objectives to meet course goals using the JPRs

Requisite Skills. Writing course objectives and correlating them to JPRs.

803-6.3.7 Construct a course content outline, given course objectives, reference sources, functional groupings and the agency structure, so that the content supports the agency structure and reflects current acceptable practices.

Requisite Knowledge. Correlation between course goals, course outline, objectives, JPRs, instructor lesson plans, and instructional methods.

- 1) Correlation between course goals, course outline, objectives, JPRs, instructor lesson plans, and instructional methods
 - a) Develop course outline to meet course goals and objectives using JPRs
 - b) Develop course outline so that lesson plans may be created and instructional delivery methods identified

Requisite Skills. None required.

803-6.4 **Instructional Delivery**

No JPRs at the Instructor III Level.

803-6.5 **Evaluation and Testing**

803-6.5.1 **Definition of Duty.** Develops an evaluation plan; collects, analyses, and reports data; and utilizes data for program validation and student feedback.

803-6.5.2 Develop a system for the acquisition, storage, and dissemination of evaluation results, given agency goals and policies, so that the goals are supported and so that those affected by the information receive feedback consistent with agency policies and federal, state, and local laws.

Requisite Knowledge. Record-keeping systems, agency goals, data acquisition techniques, applicable laws, and methods of providing feedback.

- 1) Record-keeping systems
 - a) Electronic
 - b) Paper-based (hard copy)
- 2) Agency goals – AHJ
- 3) Data acquisition techniques
 - a) Electronic
 - b) Paper-based (hard copy)
- 4) Applicable laws
 - a) Federal
 - b) State
 - c) Local
- 5) Methods of providing feedback
 - a) Electronic paper-based (hard copy)
 - b) Verbal

Requisite Skills. The evaluation, development, and use of information systems.

803-6.5.3 Develop course evaluation plan, given course objectives and agency policies, so that objectives are measured and agency policies are followed.

Requisite Knowledge. Evaluation techniques, agency constraints, and resources.

- 1) Evaluation techniques
 - a) General areas of course evaluation
 - i) Reaction
 - ii) Knowledge
 - iii) Skills
 - iv) Attitudes
 - v) Transfer of learning
 - vi) results
 - b) Evaluation methods
 - i) Formative evaluation
 - ii) Field testing (Pilot program)
 - iii) Observation
 - (1) Learner responses
 - (2) Test results
 - c) Summative evaluation
 - i) End of course feedback
- 2) Agency constraints – AHJ
- 3) Resources
 - a) Human resources
 - b) Equipment

Requisite Skills. Decision making.

803-6.5.4 Create a program evaluation plan, given agency policies and procedures, so that instructors, course components, and facilities are evaluated and student input is obtained for course improvement.

Requisite Knowledge. Evaluation methods and agency goals.

- 1) Evaluation methods
 - a) General areas of program evaluation
 - i) Reaction
 - ii) Knowledge
 - iii) Skills
 - iv) Attitudes
 - v) Transfer of learning
 - vi) Results
 - b) Evaluation techniques
 - i) Formative evaluation
 - ii) Field testing (Pilot program)
 - iii) Observation
 - (1) Learner responses

- (2) Test results
- c) Summative evaluation
 - i) End of course feedback
 - (1) Student course evaluation
 - (2) Instructor evaluation
 - (3) Course component evaluation
 - (4) Facilities evaluation

2) Agency goals - AHJ

Requisite Skills. Construction of evaluation instruments.

803-6.5.5 **(This is the old 5.5.4) Analyze student evaluation instruments, given test data, objectives, and agency policies, so that validity is determined and necessary changes are accomplished made.**

Requisite Knowledge. Test validity, reliability, and item analysis.

1) **Test validity**

- a) **A valid test requires the learner to perform the same behavior under the same conditions specified in the instructional objective**
- b) **Match test item to the objective**
- c) **Test only skills that relate to the objective**
- d) **Test at proper learning level**
- e) **No tricks**
- f) **Subjects weighted and distributed properly**
- g) **Accurate predictor of field performance**

2) **Reliability**

- a) **A reliable test provides a consistent measure of a student's ability to demonstrate achievement of an objective**
- b) **Contains no clues**
- c) **Distractors are realistic**
- d) **Order of answers is random**
- e) **Is written clearly**
- f) **Uses negatives carefully**

3) **Item analysis**

- a) **Determine percentage of students who missed the question**
- b) **Determine why question was missed**
- c) **Revise question or instruction as necessary**

Requisite Skills. Item analysis techniques.

REFERENCE LIST FOR THE FIRE OFFICER III CURRICULUM

Certified Training Facilities approved to teach this curriculum must have the following reference materials:

Required References:

Chief Officer (1st Ed)(2012). Burlington, MA: Jones and Bartlett Learning.

Chief Officer (2nd Ed) (2004). Stillwater, OK: International Fire Service Training Association

National Incident Management System: Principles and Practice (~~1st Ed~~) (2005) **(2nd Ed)(2012)**. Sudbury, MA: Jones and Bartlett Publishers, Inc.

NFPA 1021: Standard for Fire Officer Professional Qualifications (2009 Ed.). Quincy, MA: National Fire Protection Association. NFPA Publications

Officer Development Handbook (2nd Ed)(2010). Fairfax, VA: International Association of Fire Chiefs.

Standards Manual for Fire Protection Personnel Austin, TX: Texas Commission on Fire Protection.

Recommended References:

~~*Chief Officer* (1st Ed)(2012). Burlington, MA: Jones and Bartlett Learning.~~

~~*Officer Development Handbook* (2nd Ed)(2010). Fairfax, VA: International Association of Fire Chiefs.~~

Summary of changes:

The “required” and “recommended” designations were removed, and the two books listed under “recommended references” were lumped in with the rest of the books. In addition, the NIMS book was updated to the new second edition.

REFERENCE LIST FOR THE FIRE OFFICER IV CURRICULUM

Certified Training Facilities approved to teach this curriculum must have the following reference materials:

Required References:

Chief Officer (1st Ed)(2012). Burlington, MA: Jones and Bartlett Learning.

Chief Officer (2nd Ed) (2004). Stillwater, OK: International Fire Service Training Association

National Incident Management System: Principles and Practice (1st Ed) (2005) **(2nd Ed)(2012)**. Sudbury, MA: Jones and Bartlett Publishers, Inc.

NFPA 1021: Standard for Fire Officer Professional Qualifications (2009 Ed.). Quincy, MA: National Fire Protection Association. NFPA Publications

Officer Development Handbook (2nd Ed)(2010). Fairfax, VA: International Association of Fire Chiefs.

Standards Manual for Fire Protection Personnel Austin, TX: Texas Commission on Fire Protection.

Recommended References:

Chief Officer (1st Ed)(2012). Burlington, MA: Jones and Bartlett Learning.

Officer Development Handbook (2nd Ed)(2010). Fairfax, VA: International Association of Fire Chiefs.

Summary of changes:

The “required” and “recommended” designations were removed, and the two books listed under “recommended references” were lumped in with the rest of the books. In addition, the NIMS book was updated to the new second edition.

RECOMMENDED REFERENCE LIST FOR THE BASIC WILDLAND FIRE FIGHTER CURRICULUM

Certified Training Facilities approved to teach this curriculum must have the following reference materials:

Firefighter Training S-130, Instructor Guide (2003). Boise, ID: National Wildfire Coordinating Group. National Interagency Fire Center.

Firefighter Training S-130, Student Work Book (2003). Boise, ID: National Wildfire Coordinating Group. National Interagency Fire Center.

Fireline Handbook (March, 2004). Boise, ID: National Wildfire Coordinating Group. National Interagency Fire Center.

Incident Response Pocket Guide (IRPG) (2010). Boise, ID: National Wildfire Coordinating Group. National Interagency Fire Center.

Introduction to Wildland Fire Behavior S-190, Instructor Guide (March, 2006). Boise, ID: National Wildfire Coordinating Group. National Interagency Fire Center.

Introduction to Wildland Fire Behavior S-190, Student Work Book (March, 2006). Boise, ID: National Wildfire Coordinating Group. National Interagency Fire Center.

New Generation Fire Shelter (2003). [DVD] Boise, ID: National Wildfire Coordinating Group. National Interagency Fire Center.

As of 5/8/2013, there is a free version of this DVD available for viewing at the following web address: <http://www.youtube.com/watch?v=QJsY6foLh8o&list=SP3D911BCBF3DDF303>

NFPA 1051: Standard for Wildland Fire Fighter Professional Qualifications (2012 Ed.). Quincy, MA: National Fire Protection Association. NFPA Publications

Standards Manual for Fire Protection Personnel. Austin, TX: Texas Commission on Fire Protection.

RECOMMENDED REFERENCE LIST FOR THE INTERMEDIATE WILDLAND FIRE FIGHTER CURRICULUM

Certified Training Facilities approved to teach this curriculum must have the following reference materials:

Firefighter Training S-130, Instructor Guide (2003). Boise, ID: National Wildfire Coordinating Group. National Interagency Fire Center.

Firefighter Training S-130, Student Work Book (2003). Boise, ID: National Wildfire Coordinating Group. National Interagency Fire Center.

Fireline Handbook (March, 2004). Boise, ID: National Wildfire Coordinating Group. National Interagency Fire Center.

Incident Response Pocket Guide (IRPG) (2010). Boise, ID: National Wildfire Coordinating Group. National Interagency Fire Center.

NFPA 1051: Standard for Wildland Fire Fighter Professional Qualifications (2012 Ed.). Quincy, MA: National Fire Protection Association. NFPA Publications

Portable Pumps and Water Use, S-211, Student Work Book (2012). Boise, ID: National Wildfire Coordinating Group. National Interagency Fire Center.

Standards Manual for Fire Protection Personnel. Austin, TX: Texas Commission on Fire Protection.

Wildland Fire Chain Saws, S-212 Student Workbook (February, 2004). Boise, ID: National Wildfire Coordinating Group. National Interagency Fire Center.

Wildland Training for Structural Firefighters, G-131 (September 2008). Boise, ID: National Wildfire Coordinating Group. National Interagency Fire Center.

CHAPTER ELEVEN
INTERMEDIATE WILDLAND FIRE FIGHTER
CURRICULUM OUTLINE

SECTION	SUBJECT	RECOMMENDED HOURS
Intermediate Wildland Fire Fighter		
1102-6.1	General	2
1102-6.2	Human Resource Management	3
1102-6.3	Preparedness	3
1102-6.4	Mobilization	0
1102-6.5	Suppression	12
	Task Book Skills	16
TOTAL RECOMMENDED HOURS		36

*The recommend hours total is based on a class of 12 students. Actual hours required will depend on the number of students, the number of examiners, availability of equipment, and the student skill level.

SECTION 1102
INTERMEDIATE WILDLAND FIRE FIGHTER

1102 – 6.1 **General**

1102-6.1.1 Prior to progressing to the Intermediate Wildland Fire Fighter level, the Basic Wildland Fire Fighter shall meet the JPRs defined in Sections 1102-6.1 through 1102-6.5

Requisite Knowledge. The Intermediate Wildland Fire Fighter role within the incident management system, basic map reading and compass use or other locating device, radio procedures, and record keeping.

1. The Intermediate Wildland Fire Fighter role within the incident management system
2. Basic map reading
3. Compass use or other locating device
4. Radio procedures
5. Record keeping

Requisite Skills. Orienteering and radio use.

1102-6.2 **Human Resource Management**

1102-6.2.1 Evaluate the readiness of assigned crew members, given a wildland fire, an assigned task, and agency equipment standards, so that crew members are equipped and supplied for suppression duties.

Requisite Knowledge. Agency standards and personnel inspection procedures.

1. Agency standards (AHJ)
2. Personnel inspection procedures
 - a. PPE
 - b. Tools
 - c. Supplies
 - d. Qualifications
 - e. Physical fitness level

Requisite Skills. Inspect members' personal protective equipment, tools, supplies, qualifications, and physical fitness level.

- 1102-6.2.2 Brief assigned personnel, given an assignment, supporting information, and equipment requirements, so that the personnel are informed of specific tasks, standards, safety, operational, and special interest area considerations.

Requisite Knowledge. Incident and task information necessary to carry out assignments.

1. Incident and task information necessary to carry out assignments
 - a. Briefing checklist
 - 1) Situation
 - 2) Mission/execution
 - 3) Communications
 - 4) Service/support
 - 5) Risk management
 - 6) Questions or concerns

Requisite Skills. Briefing skills.

- 1102-6.2.3 Lead wildland fire fighters in the performance of a task, given an assignment and performance standards, so that the task is safely completed within the standards in accordance with agency guidelines.

Requisite Knowledge. Leadership techniques for small groups.

1. Leadership techniques for small groups
 - a. Personnel safety
 - b. Timely completion of assigned tasks
 - c. Communication
 - 1) Face-to-face
 - 2) Radio
 - 3) Written

Requisite Skills. The application of requisite knowledge to lead wildland fire fighters to complete the task in a manner that is within the standard.

1102-6.3 **Preparedness**

1102-6.3.1 **Definition of Duty.** Responsibilities in advance of fire occurrence to ensure that tools, equipment, and supplies are fire ready.

1102-6.3.2 Maintain power tools and portable pumps, given agency maintenance specifications, supplies, and small tools, so that equipment is maintained and serviceable and defects are recognized and repaired.

Requisite Knowledge. Maintenance procedures for power tools and portable pumps.

1. Maintenance procedures for power tools – AHJ, per manufacturers' recommendations
2. Maintenance procedures for portable pumps – AHJ, per manufacturers' recommendations

Requisite Skills. Power tool and portable pump preventative maintenance and repair.

1102-6.3.3 Inspect tools and equipment, given agency specifications, so that availability of the tools and equipment for fire use is ensured.

Requisite Knowledge. Tool and equipment inspection guidelines.

1. Tool inspection guidelines – AHJ, per manufacturers' recommendations
2. Equipment inspection guidelines – AHJ, per manufacturers' recommendations

Requisite Skills. Ability to inspect the tools and equipment according to guidelines.

1102-6.4 **Mobilization.** No JPRs at this level.

1102-6.5 **Suppression**

1102-6.5.1 **Definition of Duty.** All activities to contain and extinguish a wildland or wildland/urban interface fire beginning with dispatch.

1102-6.5.2 Select fireline construction methods, given a wildland fire and line construction standards, so that the technique used is compatible with the conditions and meets agency standards.

Requisite Knowledge. Resource capabilities and limitations, fireline construction methods, and agency standards.

1. Resource capabilities
 - a. Resource type and kind
2. Resource limitations
3. Fireline construction methods
 - a. Hand crew
 - b. Dozer
 - c. Wet line
 - d. Foam
 - e. Retardant
4. Agency standards (AHJ)
5. IRPG downhill checklist

Requisite Skills. None specified.

- 1102-6.5.3 Effect the reduction of fire exposure to improved properties given a wildland or wildland/urban interface fire and available tools and equipment so that improvements are protected and the risk from fire is reduced.

Requisite Knowledge. Knowledge of fire behavior in both wildland and improved properties, and the effects of fuel modification to reduce the hazard.

1. Fire behavior in wildland and improved properties
 - a. Fuel
 - b. Weather
 - c. Topography
2. Effects of fuel modification to reduce the hazard
 - a. Fuel type
 - b. Fuel loading
 - c. Fuel moisture
 - d. Size and shape
 - e. Horizontal continuity
 - f. Vertical arrangement

Requisite Skills. The use of tools and equipment to protect the improved property.

- 1102-6.5.4 Operate a chain saw, given an assignment at a wildland fire and operational standards, so that the assignment is safely completed.

Requisite Knowledge. Agency operational standards for chainsaw operation and safety, tool selection, and personal protective equipment used during saw use.

1. Agency operational standards for chainsaw operation and safety (AHJ)
2. Agency operational standards for tool selection (AHJ)
3. Agency operational standards for personal protective equipment used during chain saw use (AHJ)

Requisite Skills. Site preparation, handling and cutting techniques, use of wedges, and saw and equipment transportation.

- 1102-6.5.5 Operate water delivery equipment, given an assignment at a wildland fire and operational standards, so that the proper equipment is selected, desired nozzle pressure is attained, and flow is maintained.

Requisite Knowledge. Basic hydraulics, pump and water delivery system capabilities, operation of pumps, basic drafting and associated equipment.

1. Basic hydraulics
2. Pump capabilities
3. Water delivery system capabilities
4. Operation of pumps
5. Basic drafting
6. Equipment associated with drafting

Requisite Skills. Placement, operation, and system setup.

- 1102-6.5.6 Secure the area of suspected fire origin and associated evidence, given a wildland fire and agency procedures, so that all evidence or potential evidence is protected from damage or destruction and reported to a supervisor.

Requisite Knowledge. Knowledge of types of evidence and the importance of site security and evidence preservation.

1. Knowledge of types of evidence
2. The importance of site security
3. The importance of evidence preservation

Requisite Skills. Evidence preservation techniques and use of marking devices for site security.

- 1102-6.5.7 Serve as a lookout, given an assignment at a wildland fire as per agency procedures, so that fire fighters are updated or warned when conditions change.

Requisite Knowledge. Basic fire behavior and how to recognize hazardous situations, communications methods, equipment, and procedures.

1. Basic fire behavior
 - a. Fuel
 - b. Topography
 - c. Weather
2. How to recognize hazardous situations
 - a. Operational engagement (IRPG)
 - 1) Risk management
 - 2) LCES
 - 3) Look up, down and around
 - 4) Standard firefighting orders
 - 5) Watch out situations
 - 6) Common denominators of fire behavior on tragedy fires
 - 7) Common tactical hazards
 - 8) Safety zones
 - 9) Downhill checklist
 - 10) Wildland urban interface firefighting

3. Communications methods
 - a. Face-to-face
 - b. Radio
 - c. Written
4. Communications equipment (AHJ)
5. Communications procedures (AHJ)

Requisite Skills. The ability to accurately describe fire behavior and changes in fire behavior through verbal communication, hand signals, or use of communication equipment.

INSTRUCTION SHEET INTERMEDIATE WILDLAND FIRE FIGHTER PERFORMANCE SKILLS

Format

The Intermediate Wildland Fire Fighter performance skills are designed to meet both the NFPA and NWCG national standards. Therefore, this curriculum contains both “performance standards evaluations” and “task book skills.” The performance standards evaluations are designed for testing and demonstrating proficiency of the NFPA job performance requirements (JPRs). The task book skills are designed to meet the requirements of the NWCG Position Task Book for FFT1/ICT5.

Performance Standard Evaluations

The performance standard evaluation skill sheets are to be used to prepare and test the trainees according to TCFP rules for skills testing. The scoring method for the Intermediate Wildland Fire Fighter performance standard evaluation skill sheets is satisfactory (S) or unsatisfactory (U) for each grading criteria, and a Pass or Fail for the entire skill sheet. In order to successfully pass an Intermediate Wildland Fire Fighter performance standard evaluation, the Intermediate Wildland Fire Fighter trainee must receive satisfactory scores in all of the grading criteria. Any grading criteria marked unsatisfactory shall require the examiner to explain the reason for the failure in written form in the comments section of the skill sheet. Some of the performance standards evaluations can be used to document completion of task book skills. However, there are several remaining task book tasks which must be completed as described below.

Task Book Skills

The TCFP Intermediate Wildland Fire Fighter curriculum requires the completion of the NWCG Position Task Book for FFT1/ICT5 as part of this course. The Course Lead Instructor must ensure that the entire task book is successfully completed during the course time frame and before issuing a certificate of course completion to a trainee. The Course Coordinator must maintain the completed task book for each trainee as required by TCFP record keeping rules.

The NWCG Position Task Book for FFT1/ICT5 can be found on this web site:

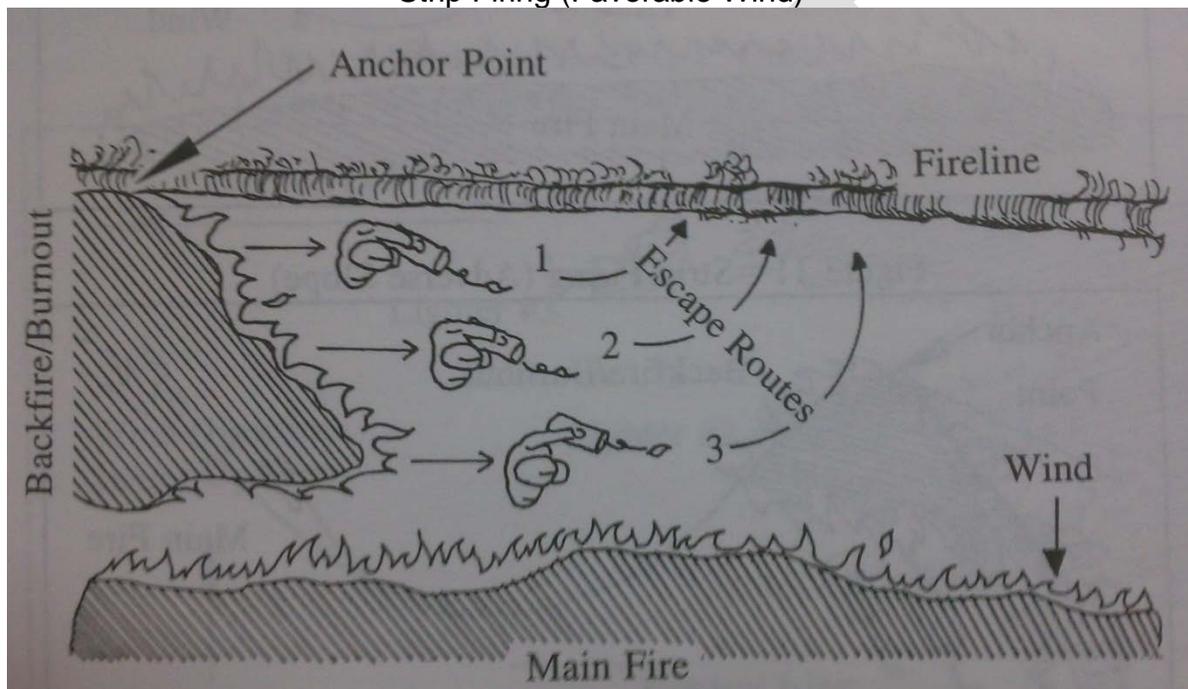
<http://ticc.tamu.edu/Documents/IncidentResponse/TIFMAS/pms-311-14%20FFI-ICT5.pdf>

This task book may be completed while on wildfire assignments as traditionally done by wildland fire fighters. However, since this curriculum is designed for experienced, certified structural fire fighters, the Course Lead Instructor may conduct alternative types of training for the completion of the task book as allowed by the Skills Crosswalk developed by NFPA and NWCG. If choosing to complete the task book as training, all of the following must be conducted: Firing Operation Exercise, Sand Table Exercises and Incident Scenarios.

Firing Operation Exercise

The wildland firefighter trainees will participate in a low complexity strip firing operation. Strip firing involves setting fire to more than one strip of fuel and providing for the strips to burn together. The skill of strip firing is best accomplished during a prescribed burn. However, during times when participation in a prescribed burn is not possible, this skill can also be accomplished as a training exercise by using hay laid on a non-combustible surface such as asphalt, bare dirt, tilled dirt, etc. A minimum area of 100 feet by 30 feet should be used. In teams of two, trainees should use fusees or drip torches to ignite the hay in strips. This type of activity replicates a strip firing operation conducted on grass.

Strip Firing (Favorable Wind)



During the firing operation exercise, the trainees shall:

- Explain the purpose of firing operations including the difference between burning out and backfiring
- Establish anchor point(s)
- Identify escape routes and safety zones
- Assess and monitor weather conditions
- Safely conduct strip firing operation
- Maintain situational awareness
- Patrol the fire line

Note: Although NFPA 1403 Standard on Live Fire Training Evolutions does not apply to live fire training evolutions that involve ground cover or wildland fires, the Course Lead Instructor shall take many of the similar precautions listed in that standard, including but not limited to:

- Assigning a student-to-instructor ratio not greater than five to one
- Ensuring all personal protective clothing are NFPA compliant and being worn in the proper manner prior to the ignition of any fire
- Ensuring that a water supply of adequate rate and duration is readily available to control and extinguish the training fire, if needed
- Appointing a safety officer
- Conducting a pre-burn briefing session prior to the ignition of any fire
- Conduct the training using an Incident Management System
- Maintaining awareness of weather conditions, wind velocity, and wind direction, including a final check for possible changes in weather conditions immediately before ignition of any fire
 - Recommended maximum wind speed: 12 mph
 - Recommended minimum relative humidity: 20%

Sand Table Exercises

The wildland firefighter trainees will participate in Tactical Decision Games (TDG) using Sand Table Exercises (STEX). The TDGs must include various wildland and urban/interface fire scenarios that require the trainees to make tactical decisions and solve problems within time constraints. During these exercises, and while using the IRPG and the Fireline Handbook, the trainees shall also:

- Obtain information from dispatch
- Assume Command
- Size up the fire (IRPG inside front cover)
- Assess and monitor weather conditions
- Assess risk vs benefit (IRPG pages 1 - 5)
- Set incident priorities and determine resources needed
- Determine if incident complexity exceeds Incident Commander's skill level.
- Provide radio reports
- Identify escape routes and safety zones (IRPG page 6)
- Organize assigned personnel into configurations which will meet incident/tactical objectives (using Fireline Handbook)
- Maintain situational awareness
- When given changing conditions, review and revise tactics if necessary
- Conduct AAR (IRPG page xii) and complete necessary documentation

For a short video of sand table exercises and how to conduct them, visit this web site:
<http://www.youtube.com/watch?v=hmVOxryU7YE&list=SP3D911BCBF3DDF303>

For a Tactical Decision Games library and references (TDG/STEX workbook, TDG/STEX template, sand table examples, etc.), visit this web site:
http://www.fireleadership.gov/toolbox/TDG_Library/default.htm

Incident Scenarios

The wildland firefighter trainees will participate in at least two full-scale incident scenarios that are managed under the Incident Command System (ICS). One incident must be a wildfire incident involving fire in an unimproved area with fuels appropriate for the region. The second incident must be a WUI incident involving a wild fire with fuels appropriate for the region, which is threatening structures. Successful completion of these skills requires realism. Therefore, these scenarios should be conducted as real as possible and at locations appropriate for the scenario when possible.

These incident scenarios must be complex (Type 3 minimum) enough so that:

- Resources are required from multiple agencies
- Some or all of the ICS command and general staff positions are assigned
- Several division/group supervisor and/or unit leader level positions are assigned
- The incident is expected to extend into multiple operational periods.
- A written IAP may be required for each operational period

During at least one of the two incident scenarios, each wildland firefighter trainee must be assigned as a crew leader. While performing in this assignment, the trainees shall:

- Inspection squad members and their PPE
- Arrive at incident and check in
- Obtain briefing from supervisor (IRPG inside back cover)
- Brief and supervise squad members (IRPG inside back cover)
- Navigate to assigned destination (compass, topographical map, etc.)
- Identify escape routes and safety zones (IRPG page 6)
- Patrol fire line
- Provide status updates and report fire conditions to supervisor by radio
- Provide for the safety of assigned resources
- Correct unsafe actions as needed
- Participate in AAR
- Demobilize and check out

Preparation and Equipment

All of the performance standard evaluation skill sheets indicate the equipment needed to perform those skills. In addition to the equipment listed on the skills sheets, the following equipment is also needed to perform the task book skills:

- Sand table(s) and associated simulation equipment
- Fusees or drip torches
- Hay suitable for burning during Firing Operations Exercise

NWCG FFT1/ICT5 Task Book Equivalency Chart

This chart indicates the specific type(s) of training required in the TCFP Intermediate Wildland Fire Fighter curriculum which is equivalent to the completion of each task in the NWCG FFT1/ICT5 task book. When the Course Lead Instructor chooses to have the trainees complete the task book by the listed TCFP training equivalencies, many of the NWCG tasks will be completed more than once.

NWCG Task	TCFP Curriculum Equivalency
1. Obtain complete information from dispatch upon assignment	Sand Table Exercises
2. Bring adequate personal gear and effects within established weight requirements.	TCFP Performance Standards Evaluation Skill #3 Wildfire Incident Scenario WUI Incident Scenario
3. Follow safety procedures for foot travel and for transporting personnel and equipment (loading, riding, and unloading).	Wildfire Incident Scenario WUI Incident Scenario
4. Correctly prepare radio for operation.	TCFP Performance Standards Evaluation Skill #2
5. Arrive at incident and check in.	Wildfire Incident Scenario WUI Incident Scenario
6. Inspect squad members and their personal protective equipment (PPE) and ensure personnel and equipment meet agency requirements, conditions of hire, and supervisor's instructions.	TCFP Performance Standards Evaluation Skill #3 Wildfire Incident Scenario WUI Incident Scenario
7. Examine tools, equipment, and supplies required to complete assigned task for amount, serviceability, and safety.	TCFP Performance Standards Evaluation Skill #3 TCFP Performance Standards Evaluation Skill #5 TCFP Performance Standards Evaluation Skill #7 TCFP Performance Standards Evaluation Skill #8
8. Obtain initial briefing from supervisor.	TCFP Performance Standards Evaluation Skill #4 Wildfire Incident Scenario WUI Incident Scenario
9. Conduct self in a professional manner.	TCFP Performance Standards Evaluation Skill #4 TCFP Performance Standards Evaluation Skill #9 Sand Table Exercises Wildfire Incident Scenario WUI Incident Scenario
10. Establish and maintain positive interpersonal and interagency working relationships.	Wildfire Incident Scenario WUI Incident Scenario
11. Accurately navigate to an assigned destination.	TCFP Performance Standards Evaluation Skill #1 Wildfire Incident Scenario WUI Incident Scenario
12. Use the Incident Response Pocket Guide (IRPG) and Fireline Handbook.	TCFP Performance Standards Evaluation Skill #4 Sand Table Exercises Wildfire Incident Scenario WUI Incident Scenario

13. Demonstrate proficiency with tools and equipment.	TCFP Performance Standards Evaluation Skill #5 TCFP Performance Standards Evaluation Skill #7 TCFP Performance Standards Evaluation Skill #8 Firing Operation Exercise
14. Properly use portable or mobile multichannel radio.	TCFP Performance Standards Evaluation Skill #2 Sand Table Exercises Wildfire Incident Scenario WUI Incident Scenario
15. Apply the ICS.	Sand Table Exercises WUI Incident Scenario Wildfire Incident Scenario
16. Exhibit principles of duty.	Sand Table Exercises WUI Incident Scenario Wildfire Incident Scenario
17. Exhibit principles of respect.	Sand Table Exercises WUI Incident Scenario Wildfire Incident Scenario
18. Exhibit principles of integrity.	Sand Table Exercises WUI Incident Scenario Wildfire Incident Scenario
19. Provide for the safety and welfare of assigned resources.	Sand Table Exercises WUI Incident Scenario Wildfire Incident Scenario
20. Serve as lookout.	TCFP Performance Standards Evaluation Skill #10
21. Provide supervision for members assigned to squad.	Wildfire Incident Scenario WUI Incident Scenario
22. Establish crew cohesiveness.	Wildfire Incident Scenario WUI Incident Scenario
23. Obtain tactical assignment from supervisor following the IRPG briefing checklist.	Wildfire Incident Scenario WUI Incident Scenario
24. Brief subordinates or relief personnel periodically and with every change from planned work.	TCFP Performance Standards Evaluation Skill #4 Wildfire Incident Scenario WUI Incident Scenario
25. Participate in After Action Reviews (AAR).	Wildfire Incident Scenario WUI Incident Scenario
26. Complete required documentation.	Sand Table Exercises
27. Assist with preparation of necessary reports and records.	Sand Table Exercises
28. Keep assigned crew members informed on a continuing basis about pertinent information.	Wildfire Incident Scenario WUI Incident Scenario
29. Maintain communication with adjoining resources.	Wildfire Incident Scenario WUI Incident Scenario
30. Properly size up fire.	Sand Table Exercises
31. Monitor, document, and report weather observations.	Sand Table Exercises Firing Operation Exercise
32. Apply the Risk Management Process found in the IRPG and Fireline Handbook.	Sand Table Exercises

33. Develop strategy and apply appropriate tactics for the assignment.	TCFP Performance Standards Evaluation Skill #6 Sand Table Exercises
34. Demonstrate proficiency on a low complexity firing operation.	Firing Operation Exercise
35. Patrol fireline.	Firing Operation Exercise Wildfire Incident Scenario WUI Incident Scenario
36. Maintain situation awareness and adjust tactics as necessary.	Sand Table Exercises Firing Operation Exercise Wildfire Incident Scenario WUI Incident Scenario
37. Identify and correct unsafe actions or conditions.	Sand Table Exercises Firing Operation Exercise Wildfire Incident Scenario WUI Incident Scenario
38. Identify escape routes and safety zones.	Sand Table Exercises Wildfire Incident Scenario WUI Incident Scenario Firing Operation Exercise
39. Demobilize and check out.	Wildfire Incident Scenario WUI Incident Scenario
40. Obtain and assemble information and materials needed for kit.	Wildfire Incident Scenario WUI Incident Scenario
41. Using the Size-Up Report checklist in the IRPG, gather and prepare all available information necessary to make appropriate decisions about immediate needs and actions.	Sand Table Exercises
42. Using the Fireline Handbook, organize assigned personnel into configurations which will meet incident/tactical objectives.	Sand Table Exercises
43. Establish command and control.	Sand Table Exercises
44. Using the Risk Management Process in the IRPG, provide for the safety and welfare of assigned resources.	Wildfire Incident Scenario WUI Incident Scenario
45. Assign personnel to utilize skills and qualifications; make adjustments as needed.	Wildfire Incident Scenario WUI Incident Scenario
46. Ensure subordinates understand assignment for operational period.	Wildfire Incident Scenario WUI Incident Scenario
47. Continually evaluate performance.	Sand Table Exercises Firing Operation Exercise Wildfire Incident Scenario WUI Incident Scenario
48. Brief and keep subordinates informed throughout the incident using the IRPG briefing checklist.	Wildfire Incident Scenario WUI Incident Scenario

49. Provide status updates to supervisor and/or dispatch.	Sand Table Exercises Wildfire Incident Scenario WUI Incident Scenario
50. Provide fire report information to supervisor and/or dispatch.	Sand Table Exercises Wildfire Incident Scenario WUI Incident Scenario
51. Using the IRPG, conduct After Action Reviews (AAR).	Sand Table Exercises
52. Obtain incident objectives from designated officer, supervisor, or dispatch.	Sand Table Exercises Wildfire Incident Scenario WUI Incident Scenario
53. Considering incident objectives, set priorities, and implement appropriate tactics.	Sand Table Exercises
54. Evaluate incident progress.	Sand Table Exercises
55. Comply with agency/area dispatch protocol.	Sand Table Exercises Wildfire Incident Scenario WUI Incident Scenario
56. Obtain, monitor, and document fire weather forecasts and other environmental factors to anticipate changes in fire behavior.	Sand Table Exercises Wildfire Incident Scenario WUI Incident Scenario
57. Determine if incident complexity exceeds Incident Commander's skill level.	Sand Table Exercises
58. Determine when incident objectives are met.	Sand Table Exercises
59. Follow local direction to maintain environmental quality and avoid damage to social or cultural environment.	Sand Table Exercises Wildfire Incident Scenario WUI Incident Scenario
60. Plan, schedule, and coordinate demobilization of assigned resources.	Wildfire Incident Scenario WUI Incident Scenario

SKILL #1

Using Map and Compass (Orienteering)

Subject: General**Section 1102****NFPA 1051 6.1.1****Intermediate Wildland Firefighter****OBJECTIVE**

The Intermediate Wildland Fire Fighter trainee shall demonstrate proper orienteering skills by reading a map and using a compass.

INSTRUCTIONS - procedures for achieving the objective

Given a local topographical map and compass you will accurately navigate to assigned destination. You will begin on my instruction to start. The skill will end when you state to me the distance and bearing to your assigned destination. Do you understand these instructions?

EXAMINERS NOTE

The wildland firefighter trainee will not be allowed to review the performance steps at the time of testing.

The examiner must provide the wildland firefighter trainee with an assigned destination. Their current position is the starting point.

PREPARATION & EQUIPMENT

Map

Compass

SKILL #1
Using Map and Compass (Orienteering)

Candidate: _____ Notes: _____

Examiner: _____

School: _____

Test Site: _____

Intermediate Wildland Firefighter	<u>TEST</u>		<u>RETEST</u>	
SKILL #1	PASS	FAIL	PASS	FAIL
The Intermediate Wildland Fire Fighter trainee shall demonstrate proper orienteering skills by reading a map and using a compass.				
	S	U	S	U
a. Uses compass to point to true North				
b. Accurately orients map using compass, landmarks, topographical features, etc.				
c. Verifies location by comparing topographic features with map				
d. Accurately reads and identifies at least three map symbols and/or features				
e. Accurately computes distance and bearing				

SKILL #2
Using a Radio

Subject: General

Section 1102

NFPA 1051 6.1.1

Intermediate Wildland Firefighter

OBJECTIVE

The Intermediate Wildland Fire Fighter trainee shall demonstrate the proper use of a portable radio.

INSTRUCTIONS - procedures for achieving the objective

Given a portable radio and an assigned channel you will demonstrate how to prepare the radio and transmit and receive messages. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

EXAMINERS NOTE

The wildland firefighter trainee will not be allowed to review the performance steps at the time of testing.

The examiner shall give the trainee an assigned channel before beginning the skill.

PREPARATION & EQUIPMENT

2 Portable Radios

SKILL #2
Using a Radio

Candidate: _____ Notes: _____

Examiner: _____

School: _____

Test Site: _____

Intermediate Wildland Firefighter	<u>TEST</u>		<u>RETEST</u>	
SKILL #2	PASS	FAIL	PASS	FAIL
The Intermediate Wildland Fire Fighter trainee shall demonstrate the proper use of a portable radio.				
	S	U	S	U
a. Prepares radio for use				
b. Selects proper channel				
c. Receives transmitted message				
d. Holds mic two to four inches from mouth				
e. Transmits using clear text				

Evaluator/Candidate Comments:

All steps of the skill objective are mandatory and must be scored as “Satisfactory” to pass the skill.

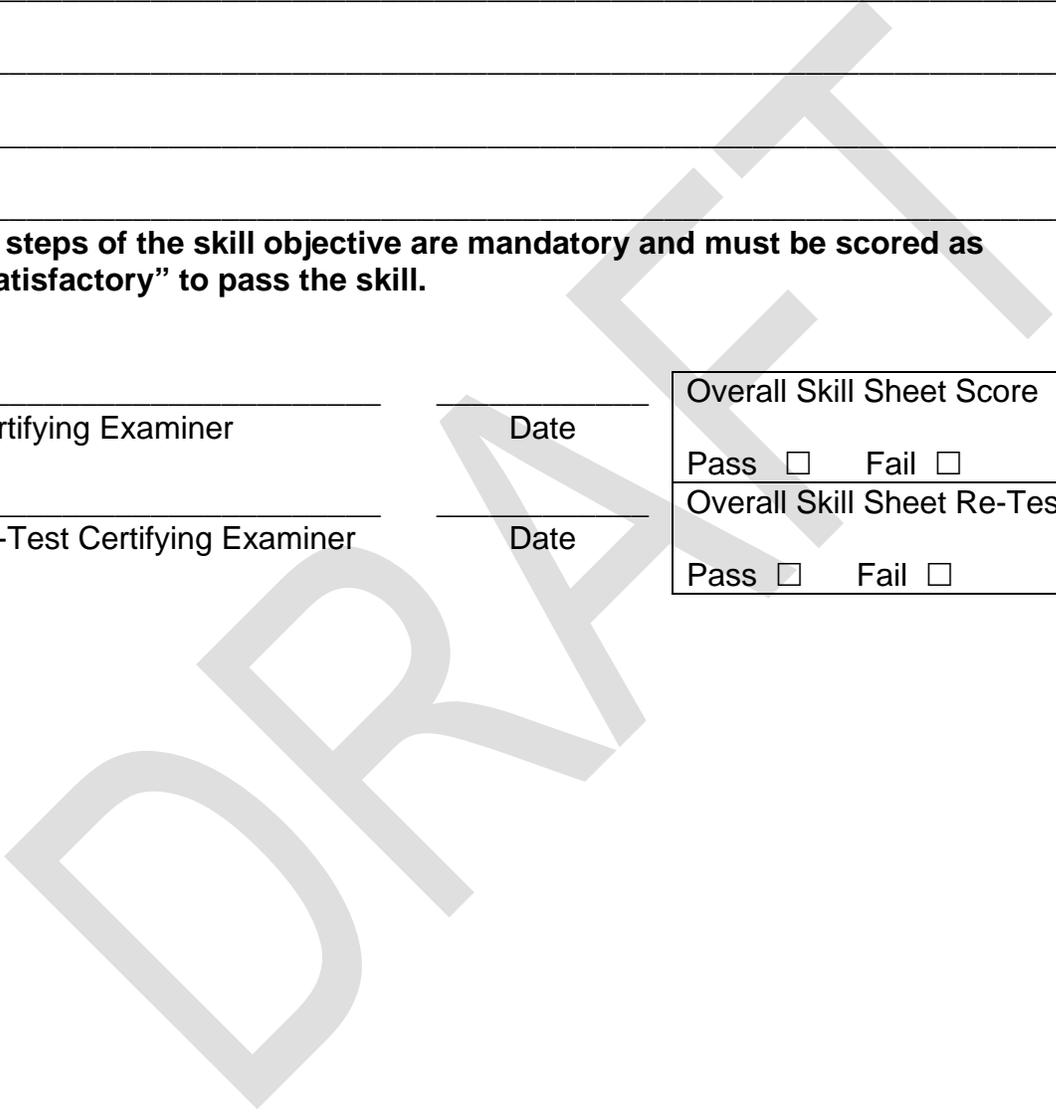
Certifying Examiner

Date

Re-Test Certifying Examiner

Date

Overall Skill Sheet Score
Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Overall Skill Sheet Re-Test Score
Pass <input type="checkbox"/> Fail <input type="checkbox"/>



SKILL #3

Evaluate Crew Members' Readiness

Subject: Human Resources Management**Section 1102****NFPA 1051 6.2.1****Intermediate Wildland Firefighter****OBJECTIVE**

Evaluate the readiness of assigned crew members, given a wildland fire, an assigned task, and agency equipment standards, so that crew members are equipped and supplied for suppression duties. (6.2.1)

INSTRUCTIONS - procedures for achieving the objective

Given a wildland fire, an assigned task, and agency equipment standards, you will evaluate the readiness of assigned crew members so that they are equipped and supplied for suppression duties. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

EXAMINERS NOTE

The wildland firefighter trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT

Equipment specific to the assigned task
Assignment specific PPE

SKILL #3
Evaluate Crew Members' Readiness

Candidate: _____ Notes: _____

Examiner: _____

School: _____

Test Site: _____

Intermediate Wildland Firefighter	<u>TEST</u>		<u>RETEST</u>	
SKILL #3	PASS	FAIL	PASS	FAIL
Evaluate the readiness of assigned crew members, given a wildland fire, an assigned task, and agency equipment standards, so that crew members are equipped and supplied for suppression duties. (6.2.1)				
	S	U	S	U
a. Inspects members' personal protective equipment				
b. Inspects members' tools				
c. Inspects members' supplies				
d. Inspects members' qualifications				
e. Evaluates members' physical fitness levels				
f. Performs skill in a safe and proficient manner				

Evaluator/Candidate Comments:

All steps of the skill objective are mandatory and must be scored as “Satisfactory” to pass the skill.

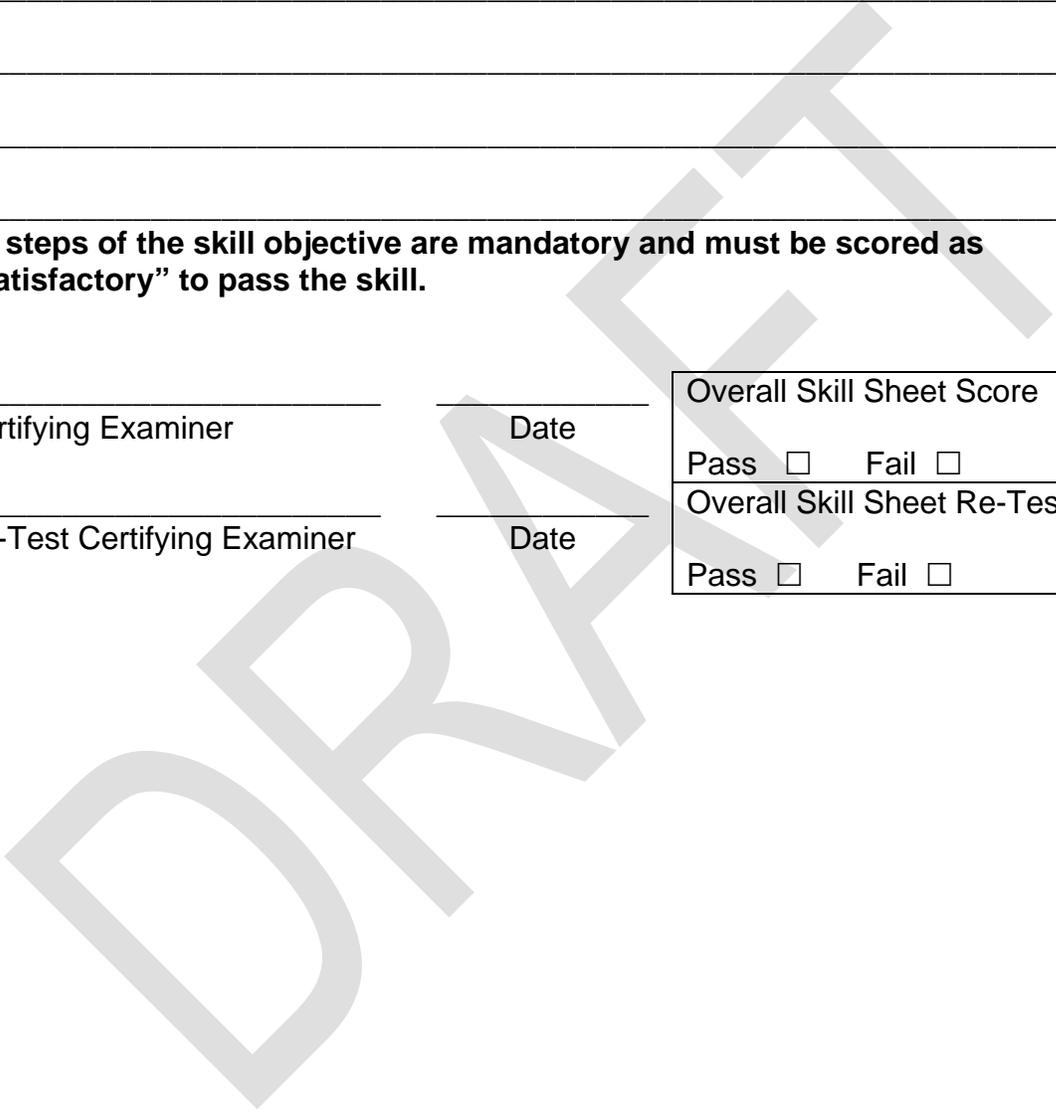
Certifying Examiner

Date

Re-Test Certifying Examiner

Date

Overall Skill Sheet Score
Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Overall Skill Sheet Re-Test Score
Pass <input type="checkbox"/> Fail <input type="checkbox"/>



SKILL #4

Briefing and Leading Personnel

Subject: Human Resource Management**Section 1102****NFPA 1051 6.2.2, 6.2.3****Intermediate Wildland Firefighter****OBJECTIVE**

Brief assigned personnel, given an assignment, supporting information, and equipment requirements, so that the personnel are informed of specific tasks, standards, safety, operational, and special interest area considerations. (6.2.2)

Lead wildland fire fighters in the performance of a task, given an assignment and performance standards, so that the task is safely completed within the standards in accordance with agency guidelines. (6.2.3)

INSTRUCTIONS - procedures for achieving the objective

Given an assignment, supporting information, equipment requirements and performance standards, you will brief assigned personnel utilizing the briefing checklist in the IRPG. Then you will lead assigned personnel so that the task is safely completed. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

EXAMINERS NOTE

The wildland firefighter trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT*IRPG*

Equipment specific to the assignment
Assignment specific PPE

SKILL #4

Briefing and Leading Personnel

Candidate: _____ Notes: _____

Examiner: _____

School: _____

Test Site: _____

Intermediate Wildland Firefighter	<u>TEST</u>		<u>RETEST</u>	
SKILL #4	PASS	FAIL	PASS	FAIL
Brief assigned personnel, given an assignment, supporting information, and equipment requirements, so that the personnel are informed of specific tasks, standards, safety, operational, and special interest area considerations. (6.2.2)				
Lead wildland fire fighters in the performance of a task, given an assignment and performance standards, so that the task is safely completed within the standards in accordance with agency guidelines. (6.2.3)				
	S	U	S	U
a. Includes situation				
b. Includes mission/execution				
c. Includes communications				
d. Includes service/support				
e. Includes risk management				
f. Includes questions or concerns				
g. Demonstrates proper briefing skills				
h. Demonstrates effective leadership skills				

Evaluator/Candidate Comments:

All steps of the skill objective are mandatory and must be scored as “Satisfactory” to pass the skill.

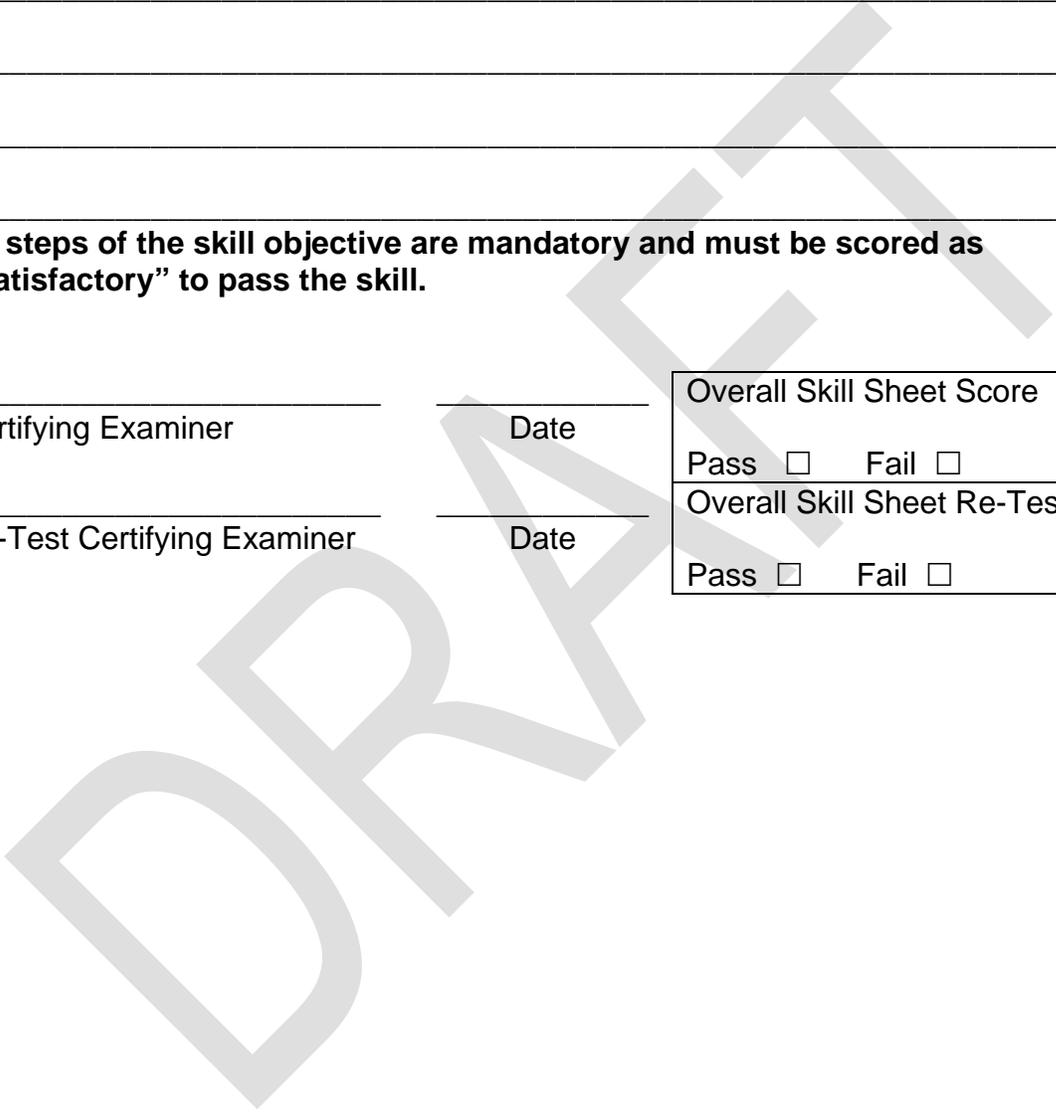
Certifying Examiner

Date

Re-Test Certifying Examiner

Date

Overall Skill Sheet Score
Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Overall Skill Sheet Re-Test Score
Pass <input type="checkbox"/> Fail <input type="checkbox"/>



SKILL #5

Maintain Power Tools and Portable Pumps

Subject: Preparedness**Section 1102****NFPA 1051 6.3.2****Intermediate Wildland Firefighter****OBJECTIVE**

Maintain power tools and portable pumps, given agency maintenance specifications, supplies, and small tools, so that equipment is maintained and serviceable and defects are recognized and repaired. (6.3.2)

INSTRUCTIONS - procedures for achieving the objective

Given agency maintenance specifications, supplies, and small tools, you will maintain power tools and portable pumps so that equipment is maintained and serviceable and defects are recognized and repaired. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

EXAMINERS NOTE

The firefighter trainee will not be allowed to review the performance steps at the time of testing.

The examiner will provide the firefighter trainee with equipment that has defects that must be repaired. Examples include:

- Dull/chipped chain on saw
- Low fuel
- Low oil
- Pull cord worn/frayed

PREPARATION & EQUIPMENT

Power tools
Portable pumps
Small tools
Supplies
Eye protection

SKILL #5
Maintain Power Tools and Portable Pumps

Candidate: _____ Notes: _____

Examiner: _____

School: _____

Test Site: _____

Intermediate Wildland Firefighter	TEST		RETEST	
SKILL #5	PASS	FAIL	PASS	FAIL
Maintain power tools and portable pumps, given agency maintenance specifications, supplies, and small tools, so that equipment is maintained and serviceable and defects are recognized and repaired. (6.3.2)				
Power Tool	S	U	S	U
a. Performed power tool maintenance safely and proficiently				
b. Recognized defects				
c. Performed repair(s) to power tool(s) safely and proficiently				
Portable Pump	S	U	S	U
a. Performed repair(s) to portable pump(s) safely and proficiently				
b. Recognized defects				
c. Performed portable pump maintenance safely and proficiently				

Evaluator/Candidate Comments:

All steps of the skill objective are mandatory and must be scored as “Satisfactory” to pass the skill.

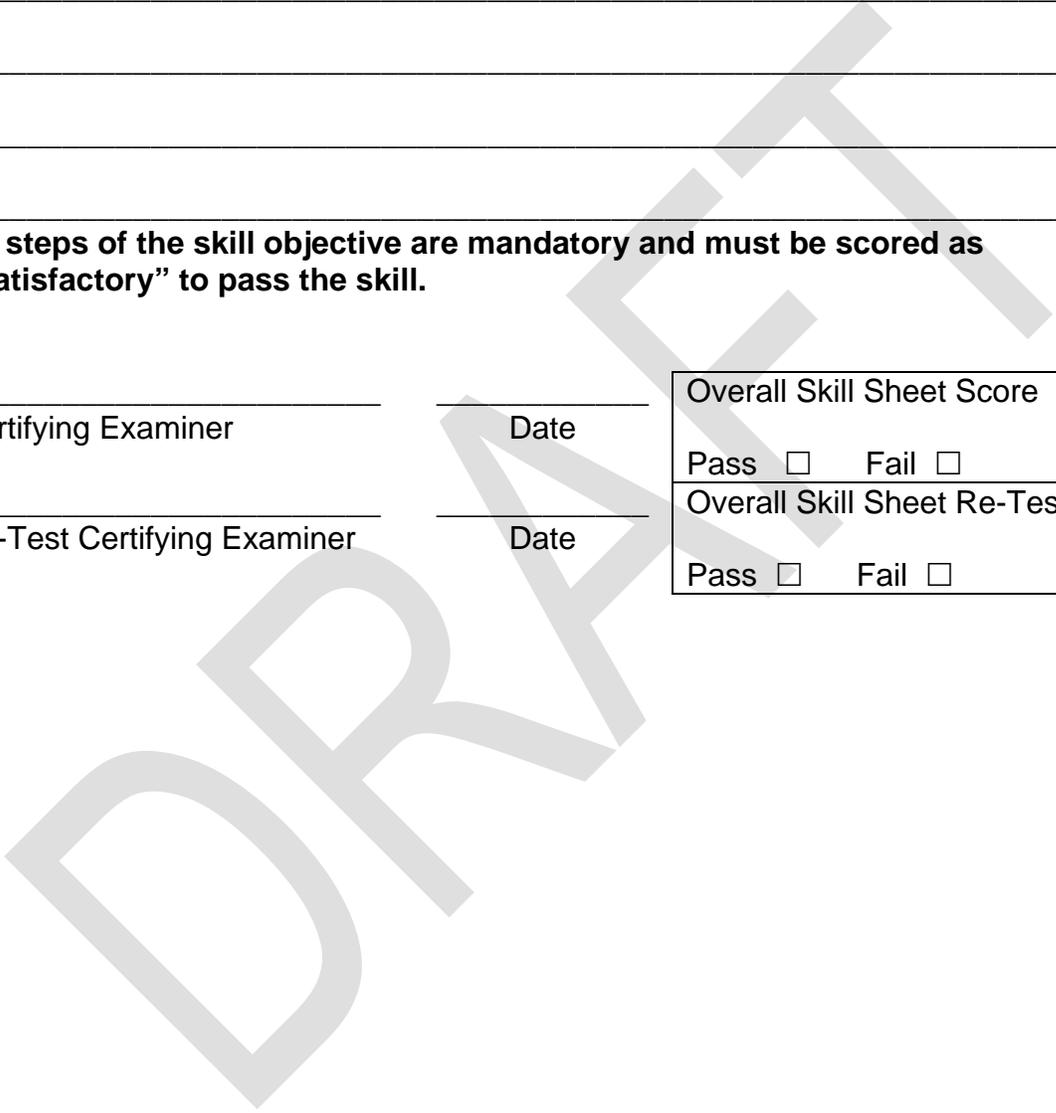
Certifying Examiner

Date

Re-Test Certifying Examiner

Date

Overall Skill Sheet Score
Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Overall Skill Sheet Re-Test Score
Pass <input type="checkbox"/> Fail <input type="checkbox"/>



SKILL #6

Protect Improved Property

Subject: Suppression**Section 1102****NFPA 1051 6.5.3****Intermediate Wildland Firefighter****OBJECTIVE**

Effect the reduction of fire exposure to improved properties given a wildland or wildland/urban interface fire and available tools and equipment so that improvements are protected and the risk from fire is reduced. (6.5.3)

INSTRUCTIONS - procedures for achieving the objective

Given a wildland or urban/interface fire scenario and using the *IRPG* or *Fireline Handbook*, you will describe methods to reduce the threat of fire exposure to structures. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

EXAMINERS NOTE

The firefighter trainee will not be allowed to review the performance steps at the time of testing.

The wildland firefighter trainee shall be provided with a picture or video of a wildland or urban/interface with structures.

PREPARATION & EQUIPMENT

Picture or video scenario

IRPG

Fireline Handbook

SKILL #6
Protect Improved Property

Candidate: _____ Notes: _____

Examiner: _____

School: _____

Test Site: _____

Intermediate Wildland Firefighter	<u>TEST</u>		<u>RETEST</u>	
SKILL #6	PASS	FAIL	PASS	FAIL
Effect the reduction of fire exposure to improved properties given a wildland or wildland/urban interface fire and available tools and equipment so that improvements are protected and the risk from fire is reduced. (6.5.3)				
	S	U	S	U
a. Explains the importance of LCES				
b. Describes wildland structural triage				
c. Identifies and explains fuel removal and ladder fuels				
d. Discusses structural ignition factors				
e. Describes structural preparation for wildfire				
f. Describes the effective use of tools and equipment to protect the structure				

Evaluator/Candidate Comments:

All steps of the skill objective are mandatory and must be scored as “Satisfactory” to pass the skill.

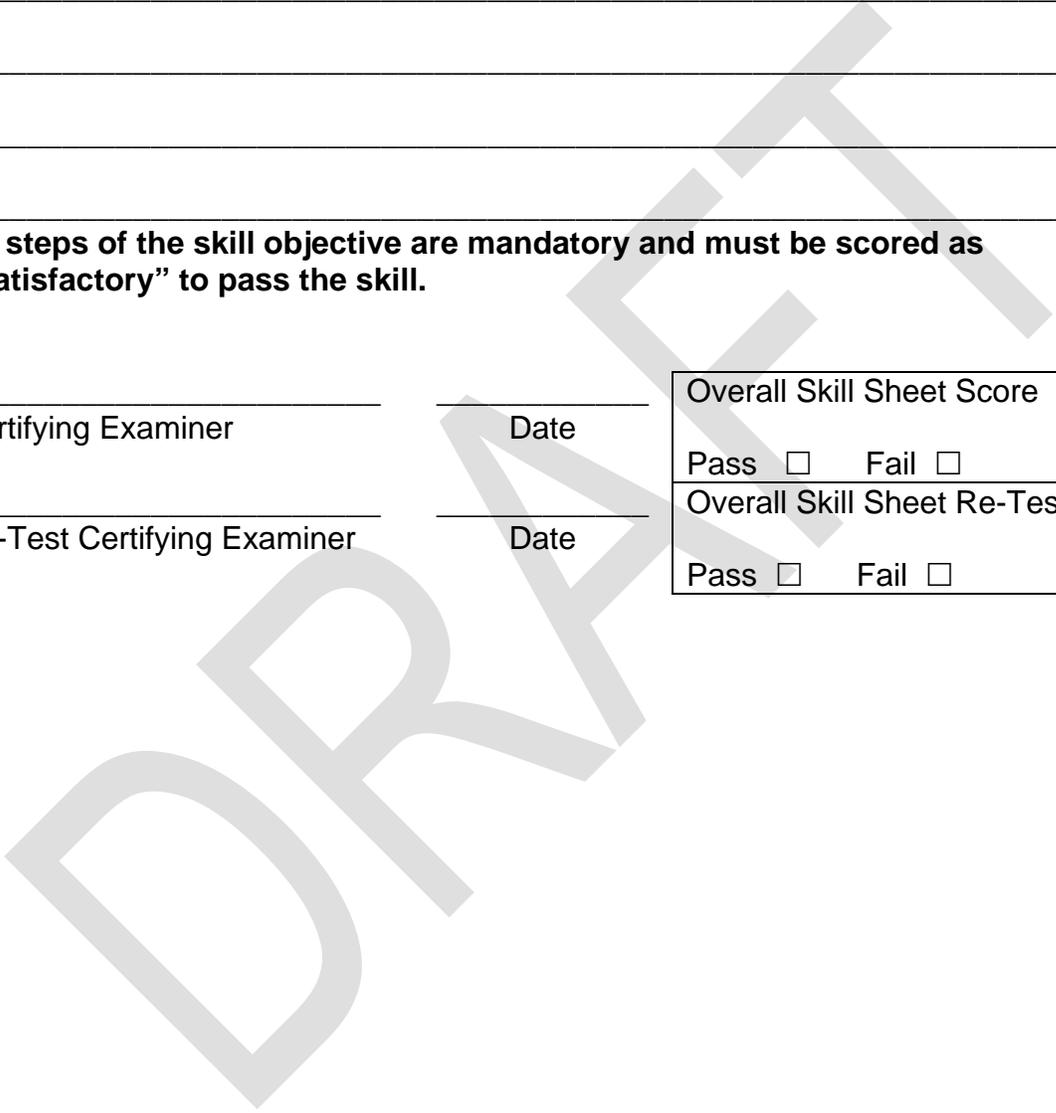
Certifying Examiner

Date

Re-Test Certifying Examiner

Date

Overall Skill Sheet Score
Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Overall Skill Sheet Re-Test Score
Pass <input type="checkbox"/> Fail <input type="checkbox"/>



SKILL #7
Operate a Chainsaw

Subject: Preparedness

Section 1102

NFPA 1051 6.5.4, 6.3.3

Intermediate Wildland Firefighter

OBJECTIVE

Operate a chain saw, given an assignment at a wildland fire and operational standards, so that the assignment is safely completed. (6.5.4)

Inspect tools and equipment, given agency specifications, so that availability of the tools and equipment for fire use is ensured. (6.3.3)

INSTRUCTIONS - procedures for achieving the objective

Given a chain saw you will describe to me the proper procedures for inspecting, operating and transporting a chainsaw. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

EXAMINERS NOTE

The wildland firefighter trainee will not be allowed to review the performance steps at the time of testing.

The operation of the chainsaw for this skill is to be simulated.

PREPARATION & EQUIPMENT

Chain saw
Wedges

The wildland firefighter trainee shall accomplish the skill wearing "**FULL PROTECTIVE CLOTHING FOR WILDLAND FIREFIGHTERS**" as defined in the *Fireline Handbook* (Appendix A, p. 39) which includes hard hat, fire resistant shirt/pants or jump suit, 8" leather boots, leather gloves, fire shelter, hearing/eye protection.

SKILL #7
Operate a Chainsaw

Candidate: _____ Notes: _____

Examiner: _____

School: _____

Test Site: _____

Intermediate Wildland Firefighter	<u>TEST</u>		<u>RETEST</u>	
SKILL #7	PASS	FAIL	PASS	FAIL
Operate a chain saw, given an assignment at a wildland fire and operational standards, so that the assignment is safely completed. (6.5.4)				
Inspect tools and equipment, given agency specifications, so that availability of the tools and equipment for fire use is ensured. (6.3.3)				
	S	U	S	U
a. Inspects chainsaw according to local SOPs and/or manufacturer's guidelines				
b. Describes additional PPE for saw usage				
c. Describes how to properly prepare the site				
d. Describes how to safely and proficiently handle chainsaw				
e. Simulates proper cutting techniques				
f. Explains the proper use of wedges				
g. Transports saw and other equipment according to local SOPs				

Evaluator/Candidate Comments:

All steps of the skill objective are mandatory and must be scored as “Satisfactory” to pass the skill.

Certifying Examiner

Date

Overall Skill Sheet Score

Pass Fail

Re-Test Certifying Examiner

Date

Overall Skill Sheet Re-Test Score

Pass Fail

SKILL #8

Operate Water Delivery Equipment

Subject: Suppression**Section 1102****NFPA 1051 6.5.5, 6.3.3****Intermediate Wildland Firefighter****OBJECTIVE**

Operate water delivery equipment, given an assignment at a wildland fire and operational standards, so that the proper equipment is selected, desired nozzle pressure is attained, and flow is maintained. (6.5.5)

Inspect tools and equipment, given agency specifications, so that availability of the tools and equipment for fire use is ensured. (6.3.3)

INSTRUCTIONS - procedures for achieving the objective

Given an assignment at a wildland fire, you will operate water delivery equipment so that the proper equipment is selected, desired nozzle pressure is attained, and flow is maintained. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

EXAMINERS NOTE

The wildland firefighter trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT

Water delivery equipment

Hose

Nozzle

The wildland firefighter trainee shall accomplish the skill wearing "**FULL PROTECTIVE CLOTHING FOR WILDLAND FIREFIGHTERS**" as defined in the *Fireline Handbook* (Appendix A, p. 39) which includes hard hat, fire resistant shirt/pants or jump suit, 8" leather boots, leather gloves, fire shelter, hearing/eye protection.

SKILL #8
Operate Water Delivery Equipment

Candidate: _____ Notes: _____

Examiner: _____

School: _____

Test Site: _____

Intermediate Wildland Firefighter	<u>TEST</u>		<u>RETEST</u>	
SKILL #8	PASS	FAIL	PASS	FAIL
Operate water delivery equipment, given an assignment at a wildland fire and operational standards, so that the proper equipment is selected, desired nozzle pressure is attained, and flow is maintained. (6.5.5)				
Inspect tools and equipment, given agency specifications, so that availability of the tools and equipment for fire use is ensured. (6.3.3)				
	S	U	S	U
a. Inspects equipment according to local SOPs and/or manufacturer's guidelines				
b. Demonstrates the correct placement and setup of water delivery system				
c. Attains desired nozzle pressure				
d. Maintains desired flow rate				
e. Operates system safely and proficiently				

Evaluator/Candidate Comments:

All steps of the skill objective are mandatory and must be scored as “Satisfactory” to pass the skill.

Certifying Examiner

Date

Overall Skill Sheet Score

Pass Fail

Re-Test Certifying Examiner

Date

Overall Skill Sheet Re-Test Score

Pass Fail

SKILL #9

Evidence Preservation and Site Security

Subject: Suppression**Section 1102****NFPA 1051 6.5.6****Intermediate Wildland Firefighter****OBJECTIVE**

Secure the area of suspected fire origin and associated evidence, given a wildland fire and agency procedures, so that all evidence or potential evidence is protected from damage or destruction and reported to a supervisor.

INSTRUCTIONS - procedures for achieving the objective

Given a wildland fire and agency procedures, you will secure the area of suspected fire origin and associated evidence so that all evidence or potential evidence is protected from damage or destruction and reported to a supervisor. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

EXAMINERS NOTE

The wildland firefighter trainee will not be allowed to review the performance steps at the time of testing.

PREPARATION & EQUIPMENT

Marking devices (scene tape, traffic cones, etc.)
Simulated evidence

The wildland firefighter trainee shall accomplish the skill wearing "**FULL PROTECTIVE CLOTHING FOR WILDLAND FIREFIGHTERS**" as defined in the *Fireline Handbook* (Appendix A, p. 39) which includes hard hat, fire resistant shirt/pants or jump suit, 8" leather boots, leather gloves, fire shelter, hearing/eye protection.

SKILL #9
Evidence Preservation and Site Security

Candidate: _____ Notes: _____

Examiner: _____

School: _____

Test Site: _____

Intermediate Wildland Firefighter	<u>TEST</u>		<u>RETEST</u>	
SKILL #9	PASS	FAIL	PASS	FAIL
Secure the area of suspected fire origin and associated evidence, given a wildland fire and agency procedures, so that all evidence or potential evidence is protected from damage or destruction and reported to a supervisor. (6.5.6)				
	S	U	S	U
a. Protects evidence from damage or destruction				
b. Effectively uses marking devices for site security				
c. Reports potential evidence to supervisor				
d. Performs skill in a safe and proficient manner				

Evaluator/Candidate Comments:

All steps of the skill objective are mandatory and must be scored as “Satisfactory” to pass the skill.

Certifying Examiner

Date

Overall Skill Sheet Score

Pass Fail

Re-Test Certifying Examiner

Date

Overall Skill Sheet Re-Test Score

Pass Fail

SKILL #10

Communicate Fire Behavior

Subject: Suppression**Section 1102****NFPA 1051 6.5.7****Intermediate Wildland Firefighter****OBJECTIVE**

Serve as a lookout, given an assignment at a wildland fire as per agency procedures, so that fire fighters are updated or warned when conditions change. (6.5.7)

INSTRUCTIONS - procedures for achieving the objective

Given an assignment at a wildland fire scenario, you will serve as a lookout so that fire fighters are updated or warned when conditions change. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

EXAMINERS NOTE

The wildland firefighter trainee will not be allowed to review the performance steps at the time of testing.

The wildland firefighter trainee shall be provided with a picture or video of a wildland or urban/interface fire and current weather conditions. In addition, the examiner shall provide a change in weather or fire conditions that necessitates the lookout to provide a warning.

PREPARATION & EQUIPMENT

Picture or video scenario

SKILL #10
Communicate Fire Behavior

Candidate: _____ Notes: _____

Examiner: _____

School: _____

Test Site: _____

Intermediate Wildland Firefighter	<u>TEST</u>		<u>RETEST</u>	
SKILL #10	PASS	FAIL	PASS	FAIL
Serve as a lookout, given an assignment at a wildland fire as per agency procedures, so that fire fighters are updated or warned when conditions change. (6.5.7)				
	S	U	S	U
a. Describes the responsibilities of a lookout				
b. Accurately describes current fire behavior				
c. Accurately describes change in fire behavior based on change in conditions				
d. Communicates changing conditions to fire fighters				

Evaluator/Candidate Comments:

All steps of the skill objective are mandatory and must be scored as “Satisfactory” to pass the skill.

Certifying Examiner

Date

Overall Skill Sheet Score
Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Overall Skill Sheet Re-Test Score
Pass <input type="checkbox"/> Fail <input type="checkbox"/>

Re-Test Certifying Examiner

Date

REFERENCE LIST FOR THE HAZARDOUS MATERIALS OPERATIONS - MISSION SPECIFIC COMPETENCIES CURRICULUM

This Reference List is provided as a general guide for both instructors and students to locate information pertaining to the specific objectives in the TCFP Curriculum. This list is **not** all-inclusive and does not in any way limit TCFP development and use of questions to test the objectives of the curriculum:

Required References

Texts

- Certification Curriculum Manual*. Texas Commission on Fire Protection. (Most current edition). Austin, TX: Texas Commission on Fire Protection.
- Code of Federal Regulations, Title 29 Part 1910.120, Appendix A*. United States. U.S. Department of Labor, Occupational Safety & Health Administration. http://edocket.access.gpo.gov/cfr_2007/julqtr/pdf/29cfr1910.120.pdf
- Emergency Response Guidebook*. United States. (Most current edition). Washington, DC: U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration.
- Essentials of Fire Fighting and Fire Department Operations*, 5th edition. International Fire Service Training Association. (2008). Stillwater, OK: Fire Protection Publications, Oklahoma State University.
- Fire Fighter's Handbook of Hazardous Materials*, 7th edition. Baker, Charles T., (2006). Sudbury, MA: Jones and Bartlett.
- Firefighter's Handbook: Essentials of Firefighting and Emergency Response*, 3rd edition. Delmar Publishers. (2008). Clifton Park, NY: Delmar, Cengage Learning.
- Fundamentals of Fire Fighter Skills*, 2nd edition. International Association of Fire Chiefs, & National Fire Protection Association. (2008). Sudbury, MA: Jones and Bartlett.
- Hazardous Materials Awareness and Operations*. DeBobes, L. J. (2009). Sudbury, MA: Jones & Bartlett.
- Hazardous Materials for First Responders*, 3rd edition. Adams, B., & Miller, L. A. (2004). Stillwater, OK: Fire Protection Publications, Oklahoma State University.
- Hazardous Materials: Managing the Incident*. Chester Noll, G. G., Hildebrand, M. S., & Yvorra, J. G. (2005). MD: Red Hat Publishing, Inc.
- Hazardous Materials/Weapons of Mass Destruction Response Handbook*, 5th edition. Trebisacci, D. G. (2008). Quincy, MA: National Fire Protection Association.
- NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents*. (2008). Quincy, MA: NFPA Publications. National Fire Protection Association

NIOSH Pocket Guide to Chemical Hazards. National Institute for Occupational Safety and Health. (Most current edition). Cincinnati, OH: US Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health. <http://www.cdc.gov/niosh/npg/>

Standards Manual for Fire Protection Personnel. Texas Commission on Fire Protection. (Most current edition). Austin, TX: Texas Commission on Fire Protection.

Recommended References

The most current edition of the following publications and media are recommended (not required) supplemental material for program use.

Texts

Bretherick's Handbook of Reactive Chemical Hazards. Urben, P. G., Pitt, M. J., & Bretherick, L. (2007). Amsterdam: Elsevier.

Chlorine Emergencies: An Overview for First Responders. Chlorine Institute. (2007). Arlington, VA: The Chlorine Institute.

CHRIS: Chemical Hazards Response Information System. United States. (1992). COMDTINST, M16465.11B. Washington, DC: U.S. Dept. of Transportation, U.S. Coast Guard.

~~*Emergency Action Guides*. Association of American Railroads. (2006). Pueblo, CO: Association of American Railroads.~~

Emergency Care for Hazardous Materials Exposure. Currance, P., Bronstein, A. C., & Clements, B. (2005). St. Louis, MO: Mosby.

Emergency Handling of Hazardous Materials in Surface Transportation. Association of American Railroads. (2009). Washington, DC: Association of American Railroads.

Field Guide to Tank Car Identification. Association of American Railroads. (2009). Washington, DC: Association of American Railroads.

Fire Protection Guide to Hazardous Materials. National Fire Protection Association. (2001). Quincy, MA: National Fire Protection Association.

Hawley's Condensed Chemical Dictionary. Lewis, R. J., & Hawley, G. G. (2007). West Sussex: Wiley.

Hazardous Materials Air Monitoring and Detection Devices. Hawley, C. (2002). Albany, NY: Delmar/Thomson Learning.

Hazardous Materials Field Guide, 2nd edition. Bevelacqua, A. S., & Stilp, R. H. (2007). Albany, NY: Delmar Publications.

Hazardous Materials: Managing the Incident Field Operations Guide. Chester Bevelacqua, A. S., Hildebrand, M. S., & Noll, G. G. (2005). MD: Red Hat Publishing, Inc.

How to Use the Chlorine Institute Emergency Kit "A" for 100 lb. and 150 lb. Chlorine Cylinders. Chlorine Institute. (1996). New York, NY: The Chlorine Institute.

How to Use the Chlorine Institute Emergency Kit "B" for Chlorine Ton Containers. Chlorine Institute. (1988). New York, NY: The Chlorine Institute.

How to Use the Chlorine Institute Emergency Kit "C" for Chlorine Tank Cars and Tank Trucks. Chlorine Institute. (1993). New York, NY: The Chlorine Institute.

Symbol Seeker: Hazard Identification Manual. Burns, P. P. (2002). Preston, England: Symbol Seeker.

Media

Hazardous Materials Containment Series. Action Training Systems. [4 Disc DVD Set] Hazardous materials containment - series of 4 titles. Seattle, WA: Action Training Systems.

Hazardous Materials: Managing the Incident DVD Series. Massingham, G., Noll, G. G., Hildebrand, M. S., & Noll, G. G. (2005). [8 Disc DVD Set] Edgartown, MA: Emergency Film Group.

Summary of changes:

Emergency Action Guides has become unavailable due to discontinuation of the publication by the publisher.

REFERENCE LIST FOR THE HAZARDOUS MATERIALS INCIDENT COMMANDER CURRICULUM

This Reference List is provided as a general guide for both instructors and students to locate information pertaining to the specific objectives in the TCFP Curriculum. This list is **not** all-inclusive and does not in any way limit TCFP development and use of questions to test the objectives of the curriculum:

Required References

Texts

Certification Curriculum Manual. Texas Commission on Fire Protection. (Most current edition). Austin, TX: Texas Commission on Fire Protection.

Code of Federal Regulations, Title 29 Part 1910.120, Appendix A. United States. U.S. Department of Labor, Occupational Safety & Health Administration.
http://edocket.access.gpo.gov/cfr_2007/julqtr/pdf/29cfr1910.120.pdf

~~*Emergency Action Guides*. Association of American Railroads. (2006). Pueblo, CO: Association of American Railroads.~~

Emergency Response Guidebook. United States. (Most current edition). Washington, DC: U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration.

Fire Fighter's Handbook of Hazardous Materials, Baker, Charles T., 7th edition. (2006). Sudbury, MA: Jones and Bartlett.

Hazardous Materials: Managing the Incident. Chester Noll, G. G., Hildebrand, M. S., & Yvorra, J. G. (2005). MD: Red Hat Publishing Company, Inc.

Hazardous Materials/Weapons of Mass Destruction Response Handbook, 5th edition. Trebisacci, D. G. (2008). Quincy, MA: National Fire Protection Association.

NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents. (2008 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association

NIOSH Pocket Guide to Chemical Hazards. Cincinnati National Institute for Occupational Safety and Health. (Most current edition). OH: US Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health. <http://www.cdc.gov/niosh/npg/>

Standards Manual for Fire Protection Personnel. Texas Commission on Fire Protection. (Most current edition). Austin, TX: Texas Commission on Fire Protection.

Recommended References

The most current edition of the following publications and media are recommended (not required) supplemental material for program use.

Texts

Bretherick's Handbook of Reactive Chemical Hazards. Urben, P. G., Pitt, M. J., & Bretherick, L. (2007). Amsterdam: Elsevier.

Chlorine Emergencies: An Overview for First Responders. Chlorine Institute. (2007). Arlington, VA: The Chlorine Institute.

CHRIS: Chemical Hazards Response Information System. United States. (1992). COMDTINST, M16465.11B. Washington, DC: U.S. Dept. of Transportation, U.S. Coast Guard.

Dangerous Properties of Industrial and Consumer Chemicals. Cheremisinoff, N. P., King, J. A., & Boyko, R. (1994). New York, NY: M. Dekker.

Emergency Care for Hazardous Materials Exposure. Currance, P., Bronstein, A. C., & Clements, B. (2005). St. Louis, MO: Mosby.

Emergency Handling of Hazardous Materials in Surface Transportation. Association of American Railroads. (2009). Washington, DC: Association of American Railroads.

Fire Protection Guide to Hazardous Materials. National Fire Protection Association. (2001). Quincy, MA: National Fire Protection Association.

Hazardous Materials: Managing the Incident: Field Operations Guide. Chester Bevelacqua, A. S., Hildebrand, M. S., & Noll, G. G. (2007). MD: Red Hat Publishing, Inc.

Hawley's Condensed Chemical Dictionary. Lewis, R. J., & Hawley, G. G. (2007). West Sussex, England: Wiley.

Symbol Seeker: Hazard Identification Manual. Burns, P. P. (2002). Preston, England: Symbol Seeker.

Media

Hazardous Materials Containment Series. Action Training Systems. [4 Disc DVD Set]. Hazardous materials containment - series of 4 titles. Seattle, WA: Action Training Systems.

Hazardous Materials: Managing the Incident DVD Series. Massingham, G., Noll, G. G., Hildebrand, M. S., & Noll, G. G. (2005). [8 Disc DVD Set]. Edgartown, MA: Emergency Film Group.

Summary of changes:

Emergency Action Guides has become unavailable due to discontinuation of the publication by the publisher.

REFERENCE LIST FOR THE HAZARDOUS MATERIALS TECHNICIAN CURRICULUM

This Reference List is provided as a general guide for both instructors and students to locate information pertaining to the specific objectives in the TCFP Curriculum. This list is **not** all-inclusive and does not in any way limit TCFP development and use of questions to test the objectives of the curriculum:

Required References

Texts

Certification Curriculum Manual. Texas Commission on Fire Protection. (Most current edition). Austin, TX: Texas Commission on Fire Protection.

Code of Federal Regulations, Title 29 Part 1910.120, Appendix A. United States. U.S. Department of Labor, Occupational Safety & Health Administration.
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~~*Emergency Action Guides*. Association of American Railroads. (2006). Pueblo, CO: Association of American Railroads.~~

Emergency Response Guidebook. United States. (Most current edition). Washington, DC: U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration.

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Hazardous Materials: Managing the Incident. Chester Noll, G. G., Hildebrand, M. S., & Yvorra, J. G. (2005). MD: Red Hat Publishing, Inc.

Hazardous Materials/Weapons of Mass Destruction Response Handbook Trebisacci, D. G. (2008). 5th edition. Quincy, MA: National Fire Protection Association.

NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents. (2008 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association

NIOSH Pocket Guide to Chemical Hazards. National Institute for Occupational Safety and Health. (Most current edition). Cincinnati, OH: US Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health.

Standards Manual for Fire Protection Personnel. Texas Commission on Fire Protection. (Most current edition). Austin, TX: Texas Commission on Fire Protection.

Recommended References

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Texts

- Bretherick's Handbook of Reactive Chemical Hazards*. Urben, P. G., Pitt, M. J., & Bretherick, L. (2007). Amsterdam: Elsevier.
- Chlorine Emergencies: An Overview for First Responders*. Chlorine Institute. (2007). Arlington, VA: The Chlorine Institute.
- CHRIS: Chemical Hazards Response Information System*. United States. (1992). COMDTINST, M16465.11B. Washington, DC: U.S. Dept. of Transportation, U.S. Coast Guard.
- Dangerous Properties of Industrial and Consumer Chemicals*. New Cheremisinoff, N. P., King, J. A., & Boyko, R. (1994). York, NY: M. Dekker.
- Emergency Care for Hazardous Materials Exposure*. St. Currence, P., Bronstein, A. C., & Clements, B. (2005). Louis, MO: Mosby.
- Emergency Handling of Hazardous Materials in Surface Transportation*. Association of American Railroads. (2009). Washington, DC: Association of American Railroads.
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- Fire Protection Guide to Hazardous Materials*. National Fire Protection Association. (2001). Quincy, MA: National Fire Protection Association.
- Hawley's Condensed Chemical Dictionary*. Lewis, R. J., & Hawley, G. G. (2007). West Sussex, England: Wiley.
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- Hazardous Materials Field Guide*, 2nd edition. Bevelacqua, A. S., & Stilp, R. H. (2007). Albany, NY: Delmar Publications.
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- Symbol Seeker: Hazard Identification Manual*. Burns, P. P. (2002). Preston, England: Symbol Seeker.

Media

Hazardous Materials Containment Series. Action Training Systems. [4 Disc DVD Set]
Hazardous materials containment - series of 4 titles. Seattle, WA: Action Training
Systems.

Hazardous Materials: Managing the Incident DVD Series. Massingham, G., Noll, G. G.,
Hildebrand, M. S., & Noll, G. G. (2005). [8 Disc DVD Set] Edgartown, MA: Emergency
Film Group.

Intermodal Containers. Noll, G. G., Hildebrand, M. S., & Donahue, M. L. (2002). [DVD]
Edgartown, MA: Emergency Film Group.

Petroleum Storage Tanks. Hildebrand, M. S., & Noll, G. G. (2003). [DVD] Edgartown, MA:
Emergency Film Group.

Summary of changes:

Emergency Action Guides has become unavailable due to discontinuation of the publication by
the publisher.

4. **Discussion and possible action regarding proposed rule changes to title 37 TAC, Chapter 421, Standards For Certification, including but not limited to, §421.1, Procedures for Meetings, §421.3, Minimum Standards Set by the Commission, §421.5, Definitions, §421.9, Designation of Fire Protection Duties, §421.11, Requirement to be Certified Within One Year, §421.13, Individual Certificate Holders, §421.15, Extension of Training Period, and §421.17, Requirement to Maintain Certification.**

Chapter 421

Standards For Certification

§421.5 Definitions

The following words and terms, when used in this standards manual, shall have the following meanings, unless the context clearly indicates otherwise.

- (1) Admission to employment--An entry level full-time employee of a local government entity in one of the categories of fire protection personnel.
- (2) Appointment--The designation or assignment of a person to a discipline regulated by the Commission. The types of appointments are:
 - (A) permanent appointment--The designation or assignment of certified fire protection personnel or certified part time fire protection employees to a particular discipline (See Texas Government Code, §419.032); and
 - (B) probationary or temporary appointment--The designation or assignment of an individual to a particular discipline, except for head of a fire department, for which the individual has passed the Commission's certification and has met the medical requirement of §423.1(b) of this title, if applicable, but has not yet been certified. (See Texas Government Code, §419.032.)
- (3) Approved training--Any training used for a higher level of certification must be approved by the Commission and assigned to either the A-List or the B-List. The training submission must be in a manner specified by the Commission and contain all information requested by the Commission. The Commission will not grant credit twice for the same subject content or course. Inclusion on the A-List or B-List does not preclude the course approval process as stated elsewhere in the Standards Manual.
- (4) Assigned/work--A fire protection personnel or a part-time fire protection employee shall be considered "assigned/working" in a position, any time the individual is receiving compensation and performing the duties that are regulated by the Texas Commission on Fire Protection certification and has been permanently appointed, as defined in this section, to the particular discipline.
- (5) Assistant fire chief--The officer occupying the first position subordinate to the head of a fire department.
- (6) Auxiliary fire fighter--A volunteer fire fighter.
- (7) Benefits--Benefits shall include, but are not limited to, inclusion in group insurance plans (such as health, life, and disability) or pension plans, stipends, free water usage, and reimbursed travel expenses (such as meals, mileage, and lodging).
- (8) Chief Training Officer--The individual, by whatever title he or she may be called, who coordinates the activities of a certified training facility.
- (9) Class hour--Defined as not less than 50 minutes of instruction, also defined as a contact hour; a standard for certification of fire protection personnel.
- (10) Code--The official legislation creating the Commission.
- (11) College credits--Credits earned for studies satisfactorily completed at an institution of higher education accredited by an agency recognized by the U.S. Secretary of Education and including National Fire Academy (NFA) open learning program colleges, or courses recommended for college credit by the American Council on Education (ACE) or delivered through the National Emergency Training Center (both EMI and NFA) programs. A course of study satisfactorily completed and identified on an official transcript from a college or in the ACE National Guide that is primarily related

to Fire Service, Emergency Medicine, Emergency Management, or Public Administration is defined as applicable for Fire Science college credit, and is acceptable for higher levels of certification. ***A criminal justice course related to fire and or arson investigation that is satisfactorily completed and identified on an official transcript from a college or in the ACE National Guide may be used to qualify for Master Arson Investigator certification.***

- (12) Commission--Texas Commission on Fire Protection.
- (13) Commission-recognized training--A curriculum or training program which carries written approval from the Commission, or credit hours that appear on an official transcript from an accredited college or university, or any fire service training received from a nationally recognized source, i.e., the National Fire Academy.
- (14) Compensation--Compensation is to include wages, salaries, and "per call" payments (for attending drills, meetings or answering emergencies).
- (15) Expired--Any certification that has not been renewed on or before the end of the certification period.
- (16) Federal fire fighter--A person as defined in the Texas Government Code, §419.084(h).
- (17) Fire chief--The head of a fire department.
- (18) Fire department--A department of a local government that is staffed by one or more fire protection personnel or part-time fire protection employees.
- (19) Fire protection personnel--Any person who is a permanent full-time employee of a fire department or governmental entity and who is appointed duties in one of the following categories/disciplines: fire suppression, fire inspection, fire and arson investigation, marine fire fighting, aircraft rescue fire fighting, fire training, fire education, fire administration and others employed in related positions necessarily or customarily appertaining thereto.
- (20) Fire suppression duties--Engaging in the controlling or extinguishment of a fire of any type or performing activities which are required for and directly related to the control and extinguishment of fires or standing by on the employer's premises or apparatus or nearby in a state of readiness to perform these duties.
- (21) Full-time--An officer or employee is considered full-time if the employee works an average of 40 hours a week or averages 40 hours per week or more during a work cycle in a calendar year. For the purposes of this definition paid leave will be considered time worked.
- (22) Government entity--The local authority having jurisdiction as employer of full-time fire protection personnel in a state agency, incorporated city, village, town or county, education institution or political subdivision.
- (23) High school--A school accredited as a high school by the Texas Education Agency or equivalent accreditation agency from another jurisdiction.
- (24) Immediately dangerous to life or health (IDLH)--An atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.
- (25) Incipient stage fire--A fire which is in the initial or beginning stage and which can be controlled or extinguished by portable fire extinguishers, Class II standpipe or small hose systems without the need for protective clothing or breathing apparatus.

(26) Instructor:

(A) Lead Instructor--Oversees the presentation of an entire course and assures that course objectives are met in accordance with the applicable curriculum or course material. The lead instructor should have sufficient experience in presenting all units of the course so as to be capable of last-minute substitution for other instructors.

(B) Instructor (also Unit Instructor for wildland courses)--Responsible for the successful presentation of one or more areas of instruction within a course, and should be experienced in the lesson content they are presenting.

(C) Guest Instructor--An individual who may or may not hold instructor certification but whose special knowledge, skill, and expertise in a particular subject area may enhance the effectiveness of the training in a course. Guest instructors shall teach under the endorsement of the lead instructor.

(27)~~(26)~~ Interior structural fire fighting--The physical activity of fire suppression, rescue or both, inside of buildings or enclosed structures which are involved in a fire situation beyond the incipient stage. (See 29 CFR §1910.155)

~~(27) Lead instructor--An individual qualified as an instructor to deliver fire protection training.~~

(28) Municipality--Any incorporated city, village, or town of this state and any county or political subdivision or district in this state. Municipal pertains to a municipality as herein defined.

(29) National Fire Academy semester credit hours--The number of hours credited for attendance of National Fire Academy courses is determined as recommended in the most recent edition of the "National Guide to Educational Credit for Training Programs," American Council on Education (ACE).

(30) National Fire Protection Association (NFPA)--An organization established to provide and advocate consensus codes and standards, research, training, and education for fire protection.

(31) National Wildfire Coordinating Group (NWCG)--An Operational group designed to establish, implement, maintain, and communicate policy, standards, guidelines, and qualifications for wildland fire program management among participating agencies.

(32)~~(30)~~ Non-self-serving affidavit--A sworn document executed by someone other than the individual seeking certification.

(33)~~(34)~~ Participating volunteer fire fighter--An individual who voluntarily seeks certification and regulation by the Commission under the Government Code, Chapter 419, Subchapter D.

(34)~~(32)~~ Participating volunteer fire service organization--A fire department that voluntarily seeks regulation by the Commission under the Government Code, Chapter 419, Subchapter D.

(35)~~(33)~~ Part-time fire protection employee--An individual who is appointed as a part-time fire protection employee and who receives compensation, including benefits and reimbursement for expenses. A part-time fire protection employee is not full-time as defined in this section.

(36)~~(34)~~ Personal alert safety system (PASS)--Devices that are certified as being compliant with NFPA 1982, and that automatically activates an alarm signal (which can also be manually activated) to alert and assist others in locating a fire fighter or emergency services person who is in danger.

(37)~~(35)~~ Political subdivision--A political subdivision of the State of Texas that includes, but is not limited to the following:

(A) city;

(B) county;

(C) school district;

(D) junior college district;

(E) levee improvement district;

(F) drainage district;

(G) irrigation district;

- (H) water improvement district;
- (I) water control and improvement district;
- (J) water control and preservation district;
- (K) freshwater supply district;
- (L) navigation district;
- (M) conservation and reclamation district;
- (N) soil conservation district;
- (O) communication district;
- (P) public health district;
- (Q) river authority;
- (R) municipal utility district;
- (S) transit authority;
- (T) hospital district;
- (U) emergency services district;
- (V) rural fire prevention district; and
- (W) any other governmental entity that:~~[-embraces a geographical area with a defined boundary;]~~
 - (i) embraces a geographical area with a defined boundary;
 - (ii) exists for the purpose of discharging functions of the government; and
 - (iii) possesses authority for subordinate self-government through officers selected by it.

(38)~~[(36)]~~ Reciprocity for IFSAC seals--Valid documentation of accreditation from the International Fire Service Accreditation Congress used for TCFP certification may only be used for obtaining an initial certification.

(39)~~[(37)]~~ Recognition of training--A document issued by the Commission stating that an individual has completed the training requirements of a specific phase level of the Basic Fire Suppression Curriculum.

(40)~~[(38)]~~ School--Any school, college, university, academy, or local training program which offers fire service training and included within its meaning the combination of course curriculum, instructors, and facilities.

(41)~~[(39)]~~ Structural fire protection personnel--Any person who is a permanent full-time employee of a government entity who engages in fire fighting activities involving structures and may perform other emergency activities typically associated with fire fighting activities such as rescue, emergency medical response, confined space rescue, hazardous materials response, and wildland fire fighting.

(42)~~[(40)]~~ Trainee--An individual who is participating in a Commission approved training program.

(43)~~[(41)]~~ Volunteer fire protection personnel--Any person who has met the requirements for membership in a volunteer fire service organization, who is assigned duties in one of the following categories: fire suppression, fire inspection, fire and arson investigation, marine fire fighting, aircraft rescue fire fighting, fire training, fire education, fire administration and others in related positions necessarily or customarily appertaining thereto.

(44)~~(42)~~ Volunteer fire service organization--A volunteer fire department or organization not under mandatory regulation by the Texas Commission on Fire Protection.

(45)~~(43)~~ Years of experience--For purposes of higher levels of certification or fire service instructor certification:

(A) Except as provided in subparagraph (B) of this paragraph, years of experience is defined as full years of full-time, part-time or volunteer fire service while holding:

(i) a Texas Commission on Fire Protection certification as a full-time, or part-time employee of a government entity, a member in a volunteer fire service organization, and/or an employee of a regulated non-governmental fire department; or

(ii) a State Firemen's and Fire Marshals' Association advanced fire fighter certification and have successfully completed, as a minimum, the requirements for an Emergency Care Attendant (ECA) as specified by the Department of State Health Services (DSHS), or its successor agency, or its equivalent; or

(iii) an equivalent certification as a full-time fire protection personnel of a governmental entity from another jurisdiction, including the military, or while a member in a volunteer fire service organization from another jurisdiction, and have, as a minimum, the requirements for an Emergency Care Attendant (ECA) as specified by the Department of State Health Services (DSHS), or its successor agency, or its equivalent; or

(iv) for fire service instructor eligibility only, a State Firemen's and Fire Marshals' Association Level II Instructor Certification, received prior to June 1, 2008 or Instructor I received on or after June 1, 2008 or an equivalent instructor certification from the Texas Department of State Health Services (DSHS) or the Texas Commission on Law Enforcement Officer Standards and Education (TCLEOSE). Documentation of at least three years of experience as a volunteer in the fire service shall be in the form of a non self-serving sworn affidavit.

(B) For fire service personnel certified as required in subparagraph (A) of this paragraph on or before October 31, 1998, years of experience includes the time from the date of employment or membership to date of certification not to exceed one year.

5. **Discussion and possible action regarding proposed rule changes to title 37 TAC, Chapter 423, Fire Suppression, Subchapter A, Minimum Standards for Structure Fire Protection Personnel Certification, including but not limited to, §423.1, Minimum Standards for Structure Fire Protection Personnel, §423.3, Minimum Standards for Basic Structure Fire Protection Personnel Certification, §423.5, Minimum Standards for Intermediate Structure Fire Protection Personnel Certification, §423.7, Minimum Standards for Advanced Structure Fire Protection Personnel Certification, §423.9, Minimum Standards for Master Structure Fire Protection Personnel Certification, §423.11, Higher Levels of Certification, §423.13, International Fire Service Accreditation Congress (IFSAC) Seal.**

CHAPTER 423

FIRE SUPPRESSION

SUBCHAPTER A

MINIMUM STANDARDS FOR STRUCTURE FIRE PROTECTION PERSONNEL CERTIFICATION

§423.1. MINIMUM STANDARDS FOR STRUCTURE FIRE PROTECTION PERSONNEL.

- (a) Fire protection personnel of any local government entity, who receive probationary or temporary appointment to structure fire protection duties, must be certified by the Commission within one year from the date of their appointment in a structural fire protection personnel position.
- (b) Prior to being appointed to fire suppression duties or certified as fire protection personnel, the Commission must review and approve the applicants fingerprint based criminal history record information obtained from the Department of Public Safety and the Federal Bureau of Investigation. The individual or fire department must follow the procedure established by the Department of Public Safety to initiate and complete the electronic fingerprint process. The results will be available to the Commission through the Department of Public Safety's data base. The Commission will follow the criteria established in Title 37 Chapter 403 of the Texas Administrative Code (TAC) for denying a person certification based on the results of the fingerprint based criminal history record check.
- (c) Prior to being appointed to fire suppression duties, personnel must complete a Commission-approved basic structure fire suppression program and successfully complete a Commission recognized emergency medical course. The individual must successfully pass the Commission examination pertaining to that curriculum as required by §423.3 of this title. The Commission recognizes the following emergency medical training:
 - (1) Department of State Health Services Emergency Medical Service Personnel certification training;
 - (2) an American Red Cross Emergency Response course, including the optional lessons and enrichment sections;
 - (3) an American Safety and Health Institute First Responder course;
 - (4) National Registry of Emergency Medical Technicians certification; or
 - (5) medical training deemed equivalent by the Commission.
- (d) Personnel holding any level of structure fire protection personnel certification must comply with the continuing education requirements specified in §441.7 of this title (relating to Continuing Education for Structure Fire Protection Personnel).

§423.3. Minimum Standards for Basic Structure Fire Protection Personnel Certification.

- (a) In order to become certified as basic structure fire protection personnel, an individual must:
 - (1) possess valid documentation of accreditation from the International Fire Service Accreditation Congress as a Fire Fighter I, Fire Fighter II, Hazardous Materials Awareness Level Personnel; and
 - (A) Hazardous Materials Operations Level Responders including the Mission-Specific Competencies for Personal Protective Equipment and Product Control under the current edition; or
 - (B) NFPA 472 Hazardous Materials Operations prior to the 2008 edition; and
 - (C) must meet the medical requirements outlined in §423.1(c)~~§423.1(b)~~ of this title; or

- (2) complete a **commission** [Commission-]approved basic structure fire suppression program, meet the medical requirements outlined in **§423.1(c)**[§423.1(b)], and successfully pass the **commission**[Commission] examination(s) as specified in Chapter 439 of this title (relating to Examinations for Certification). An approved basic structure fire suppression program shall consist of one or any combination of the following:

- (A) completion of a [Commission-]approved Basic Fire Suppression Curriculum, as specified in Chapter 1 of the **commission**[Commission's] Certification Curriculum Manual; or
- (B) completion of an out-of-state, and/or military training program deemed equivalent to the **commission** [Commission-]approved Basic Fire Suppression Curriculum; or
- (C) documentation of the receipt of an advanced certificate or training records from the State Firemen's and Fire Marshals' Association of Texas, that is deemed equivalent to a **commission** [Commission-]approved Basic Fire Suppression Curriculum.

(b)A basic fire suppression program may be submitted to the **commission** [Commission] for approval by another jurisdiction as required in Texas Government Code, §419.032(d), Appointment of Fire Protection Personnel. These programs include out-of-state and military programs, and shall be deemed equivalent by the **commission** [Commission] if the subjects taught, subject content, and total hours of training meet or exceed those contained in Chapter 1 of the **commission's**[Commission's] Certification Curriculum Manual.

§423.5. Minimum Standards for Intermediate Structure Fire Protection Personnel Certification.

- (a) Applicants for Intermediate Structure Fire Protection Personnel Certification must complete the following requirements:
- (1) hold, as a prerequisite, a Basic Structure Fire Protection Personnel Certification as defined in §423.3 of this title (relating to Minimum Standards for Basic Structure Fire Protection Personnel Certification); and
 - (2) acquire a minimum of four years of fire protection experience and complete the training listed in one of the following options:
 - (A) Option 1--Successfully complete six semester hours of fire science or fire technology from an approved Fire Protection Degree Program and submit documentation as required by the Commission that the courses comply with subsections (b) and (c) of this section; or
 - (B) Option 2--Completion of coursework from either the A-List or the B-List courses. Acceptable combinations of courses are as follows: two A-List courses; or eight B-List courses; or one A-List course and four B-List courses. (See the exception outlined in subsection (c) of this section); or
 - (C) Option 3--Completion of coursework from either the A-List or the B-List courses in combination with college courses in fire science or fire protection. Acceptable combinations of courses are three semester hours meeting the requirements of Option 1, with either one A-List course or four B-List courses (See the exception outlined in subsection (c) of this section).
- (b) Non-traditional credit awarded at the college level, such as credit for experience or credit by examination obtained from attending any school in the Commission's Certification Curriculum Manual or for experience in fire service, may not be counted toward this level of certification.
- (c) The training required in this section must be in addition to any training used to qualify for any lower level of Structure Fire Protection Personnel Certification. Repeating a course or a course of similar content cannot be used towards this level of certification.

§423.7. Minimum Standards for Advanced Structure Fire Protection Personnel Certification.

- (a) Applicants for Advanced Structure Fire Protection Personnel certification must complete the following requirements:
- (1) hold as a prerequisite an Intermediate Structure Fire Protection Personnel Certification as defined in §423.5 of this title (relating to Minimum Standards for Intermediate Structure Fire Protection Personnel Certification); and
 - (2) acquire a minimum of eight years of fire protection experience and complete the training listed in one of the following options:
 - (A) Option 1--Successfully complete six semester hours of fire science or fire technology from an approved Fire Protection Degree Program and submit documentation as required by the commission that the courses comply with subsections (b) and (c) of this section; or
 - (B) Option 2—Completion of coursework from either the A-List or the B-List courses. Acceptable combinations of courses are as follows: two A-List courses; or eight B-List courses; or one A-List course and four B-List courses. (See the exception outlined in subsection (c) of this section); or
 - (C) Option 3—Completion of coursework from either the A-List or the B-List courses in combination with college courses in fire science or fire protection. Acceptable combinations of courses are three semester hours meeting the requirements of Option 1 with either one A-List course or four B-List courses (See the exception outlined in subsection (c) of this section.
- (b) Non-traditional credit awarded at the college level, such as credit for experience or credit by examination obtained from attending any school in the commission's Certification Curriculum Manual or for experience in the fire service, may not be counted toward this level of certification.
- (c) The training required in this section must be in addition to any training used to qualify for any lower level of Structure Fire Protection Personnel Certification. Repeating a course or a course of similar content cannot be used towards this level of certification.

§423.9. Minimum Standards for Master Structure Fire Protection Personnel Certification.

- (a) Applicants for Master Structure Fire Protection Personnel Certification must complete the following requirements:
- (1) hold as a prerequisite an Advanced Structure Fire Protection Personnel Certification as defined in §423.7 of this title (relating to Minimum Standards for Advanced Structure Fire Protection Personnel Certification); and
 - (2) acquire a minimum of twelve years of fire protection experience, and 60 college semester hours or an associate degree, which includes at least 18 college semester hours in fire science subjects.
- (b) College level courses from both the upper and lower division may be used to satisfy the education requirement for Master Structure Fire Protection Personnel Certification

§423.11. Higher Levels of Certification.

- (a) An individual may receive higher levels of certification in structural fire protection while being assigned to another discipline, provided that all requirements for the higher level or levels of certification are met.
- (b) Repetitive training cannot be used toward higher levels of certification.

§423.13. International Fire Service Accreditation Congress (IFSAC) Seal.

- (a) Individuals holding a current Commission Structure Fire Protection Personnel certification received prior to March 10, 2003, may be granted International Fire Service Accreditation Congress (IFSAC) seals for Hazardous Materials Awareness Level Personnel, Hazardous Materials Operations Level

Responders, Fire Fighter I, and Fire Fighter II by making application to the Commission for the IFSAC seals and paying applicable fees.

- (b) Individuals completing a Commission-approved basic fire suppression program, meeting any other NFPA requirement, and passing the applicable examination(s) based on the basic fire suppression curriculum, may be granted IFSAC seal(s) for Hazardous Materials Awareness Level Personnel, Hazardous Materials Operations Level Responders (including the Mission-Specific Competencies for Personal Protective Equipment and Product Control), Fire Fighter I, and/or Fire Fighter II by making application to the Commission for the IFSAC seal(s) and paying applicable fees, provided they meet the following provisions;
- (1) To receive the IFSAC Hazardous Materials Awareness Level Personnel seal, the individual must:
 - (A) complete the Hazardous Materials Awareness section of a Commission-approved course; and
 - (B) pass the Hazardous Materials Awareness section of a Commission examination.
 - (2) To receive the IFSAC Hazardous Materials Operations Level Responders seal (including the Mission-Specific Competencies for Personal Protective Equipment and Product Control) the individual must:
 - (A) complete the Hazardous Materials Operation section of a Commission-approved course;
 - (B) document possession of an IFSAC Hazardous Materials Awareness Level Personnel seal; and
 - (C) pass the Hazardous Materials Operations section of a Commission examination.
 - (3) To receive the IFSAC Fire Fighter I seal, the individual must:
 - (A) complete a Commission-approved Fire Fighter I course;
 - (B) provide medical documentation as outlined in subsection (c) of this section;
 - (C) document possession of an IFSAC Hazardous Materials Awareness Level Personnel seal; and
 - (D) document possession of an IFSAC Hazardous Materials Operations Level Responders seal; and
 - (E) pass the Fire Fighter I section of a Commission examination.
 - (4) To receive the IFSAC Fire Fighter II seal, the individual must:
 - (A) complete a Commission-approved Fire Fighter II course;
 - (B) document possession of an IFSAC Fire Fighter I seal; and
 - (C) pass the Fire Fighter II section of a Commission examination.
- (c) In order to meet the medical requirements of NFPA 1001, the individual must document successful completion of an emergency medical training course or program. The Commission recognizes the following emergency medical training:
- (1) The Texas Department of State Health Services Emergency Medical Service Personnel certification training;
 - (2) American Red Cross Response course (including optional lessons and enrichment sections);
 - (3) American Safety and Health Institute First Responder course;

- (4) National Registry of Emergency Medical Technicians certification; or
- (5) medical training deemed equivalent by the Commission.

6. **Discussion and possible action regarding proposed rule changes to title 37 TAC, Chapter 455, Minimum Standards for Wildland Fire Protection Certification, including but not limited to, §455.1, Minimum Standards for Wildland Fire Protection Personnel, §455.3, Minimum Standards for Basic Wildland Fire Protection Certification, §455.5, Minimum Standards for Intermediate Wildland Fire Protection Certification, and §455.7, Examination Requirements.**

Chapter 455

Minimum Standards For Wildland Fire Protection Certification

§455.1. Minimum Standards for Wildland Fire Protection Personnel.

- (a) A wildland fire fighter is defined as an individual whose function is suppression of fires in the wildland or wildland-urban interface setting.
- (b) Individuals holding Wildland Fire Protection certification shall be required to comply with the continuing education requirements in Chapter 441 of this title (relating to Continuing Education).
- (c) All Wildland Fire Protection certifications issued by the commission and referenced in this chapter are voluntary.

§455.3. Minimum Standards for Basic Wildland Fire Protection Certification.

In order to be certified as Basic Wildland fire protection personnel, an individual must:

- (1) possess valid documentation of accreditation from the International Fire Service Accreditation Congress as Wildland Fire Fighter Level I; or
- (2) complete a **commission** ~~[commission-]~~ approved Basic Wildland Fire Protection program and successfully pass the commission examination as specified in Chapter 439 of this title (relating to Examinations for Certification). An approved Basic Wildland Fire Protection training program shall consist of one of the following:
 - (A) completion of the commission-approved Basic Wildland Fire Protection Curriculum, as specified in the applicable chapter of the commission's Certification Curriculum Manual; or;
 - (B) completion of the following Texas **A&M** Forest Service/National Wildfire Coordinating Group (**NWCG**) courses:
 - (i) S-130: Firefighter Training
 - (ii) S-190: Introduction to Wildland Fire Behavior
 - (iii) L-180: Human Factors on the Fireline
 - (iv) I-100: Introduction to the Incident Command System, or an equivalent basic incident command system course such as NIMS IS-100.
- (3) The commission examination requirement is waived for individuals who have completed the training requirements in paragraph (2)(A) or (B) of this section and apply for certification by August 31, 2013. After this date, individuals must successfully pass the commission examination prior to applying for certification.

§455.5. Minimum Standards for Intermediate Wildland Fire Protection Certification

- (a) In order to be certified as Intermediate Wildland Fire Protection personnel, an individual must:
 - (1) hold Basic Wildland Fire Protection certification issued by the commission, and
 - (2) individuals who hold Structure Fire Protection certification issued by the commission must complete **a commission approved Intermediate Wildland Fire Protection program and successfully pass the commission examination as specified in Chapter 439 of this title (relating to Examinations for Certification). An approved Intermediate Wildland Fire Protection training program shall consist of one of the following:**

(A) completion of the commission approved Intermediate Wildland Fire Protection Curriculum, as specified in the applicable chapter of the commission's Certification Curriculum Manual; or

(B) completion of the Texas A&M Forest Service/National Wildfire Coordinating Group (NWCG) course G-131: Wildland Training (FFT1) for Structural Firefighters, including the associated position task book as adopted by the Texas A&M Forest Service/NWCG 310-1/NFPA 1051 Standard for Wildland Fire Fighter Professional latest edition; or

(C) completion of the Texas A&M Forest Service/National Wildfire Coordinating Group (NWCG) courses S-131 and S-133, including the associated position task book as adopted by the Texas A&M Forest Service/NWCG 310-1/NFPA 1051 Standard for Wildland Fire Fighter Professional latest edition; ~~and successfully pass the commission examination as specified in Chapter 439 of this title (relating to Examinations for Certification), or~~

(3) individuals who hold a State Fireman's and Fire Marshal's Association Advanced Accredited certification issued prior to January 1, 2012, or a State Fireman's and Fire Marshal's Association Firefighter II certification issued on or after January 1, 2012, must complete **a commission approved Intermediate Wildland Fire Protection program and successfully pass the commission examination which includes both Basic Structure Fire Protection and Intermediate Wildland Fire Protection, as specified in Chapter 439 of this title (relating to Examinations for Certification). An approved Intermediate Wildland Fire Protection training program shall consist of one of the following:**

(A) completion of the commission approved Intermediate Wildland Fire Protection Curriculum, as specified in the applicable chapter of the commission's Certification Curriculum Manual; or

(B) completion of the Texas A&M Forest Service/National Wildfire Coordinating Group (NWCG) course G-131: Wildland Training (FFT1) for Structural Firefighters, including the associated position task book as adopted by the Texas A&M Forest Service/NWCG 310-1/NFPA 1051 Standard for Wildland Fire Fighter professional latest edition; or

(C) completion of the Texas A&M Forest Service/National Wildfire Coordinating Group (NWCG) courses S-131 and S-133, including the associated position task book as adopted by the Texas A&M Forest Service/NWCG 310-1/NFPA 1051 Standard for Wildland Fire Fighter Professional latest edition. ~~and successfully pass a commission examination which includes both Basic Structure Fire Protection and Intermediate Wildland Fire Protection, as specified in Chapter 439 of this title.]~~

(b) The commission examination requirement is waived for individuals in subsection (a)(2) of this section who have completed the training requirement and apply for certification by August 31, 2013. After this date, individuals must successfully pass the commission examination prior to applying for certification.

(c) The application processing fee for the initial examination is waived for individuals in subsection (a)(3) of this section who have completed the training requirement and submit the application for the commission examination by August 31, 2013. After this date, the application processing fee for examinations will be required.

(d) The application processing fee for the certification is not waived for individuals in subsection (c) of this section.

§455.7. Examination Requirements

(a) Examination requirements of Chapter 439 of this title (relating to Examinations for Certification) must be met in order to receive Wildland Fire Protection Certification.

(b) Persons seeking a commission certification referenced in this chapter who do not currently hold a certification issued by the Texas Commission on Fire Protection must meet all requirements regarding application for initial certification.

7. Discussion and possible action on National Fire Protection Association 1981 Standard on Open Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services and 1982 Standard on Personal Alert Safety Systems (PASS).

**NFPA 1981 AND 1982,
2013 EDITION STANDARDS UPDATE**

By John G. Dinning IV

 **SCOTT**
SAFETY



NFPA 1981 AND 1982, 2013 EDITION STANDARDS UPDATE

- WHITEPAPER

The NFPA 1981 and 1982 Standards - Open-Circuit Self-Contained Breathing Apparatus for Emergency Services and Personal Alert Safety Systems (PASS) - are quickly approaching implementation. The information below specifies timelines and provides information about the changes. The current status of these NFPA Standards revisions is as follows:

- The standards will be marked as 2013 Edition.
- The issuance date was November 27, 2012.
- The standard will be published on March 2, 2013.
- The last ship date for 2007 Edition SCBA will be August 30, 2013.

Key points of the changes:

NFPA 1981:

The changes to the standard include increased lens integrity testing, new voice intelligibility requirements, end-of-service time indicator changes, requirements for emergency breathing support systems and updating the intrinsic safety standards.

- Increased facepiece lens durability requirements through two additional tests designed to challenge the integrity of the lens and facepiece.
 - The 2007 standard does not have a specific test for the facepiece lens. The complete SCBA is tested by a 5 minute oven test at 200°F while breathing at a rate of 40 liters per minute (lpm), followed by a flame impingement exposure (approximately 1,800°F) for 10 seconds while breathing at a rate of 103 lpm, then survive a 6 inch drop test and should self-extinguish (no after flame) after 2.2 seconds. The facepiece must pass a visual acuity requirement and the SCBA must maintain positive pressure for 30 breaths after the low-pressure alarm activates following the heat and flame.
 - The proposed tests below will be incremental to the above test:
 - A high heat and flame test - it is proposed that a test to evaluate convective heat loads be added to further evaluate the integrity of the lens and facepiece. The SCBA will be subjected to a 500°F oven for 5 minutes then followed by a flame impingement exposure at 1800°F for 10 seconds, while breathing at a rate of 40 lpm for each section of the test. Following the heat and flame exposures, the SCBA and Facepiece must survive a 6 inch drop test. There are no requirements for visual acuity and a garden sprayer is permitted to extinguish any after flame. The SCBA must maintain a positive pressure for a period of twenty-four minutes regardless of the cylinder's capacity.
 - Radiant Heat -it is proposed that a test to evaluate radiant heat loads be added to further evaluate the integrity of the lens and facepiece. The SCBA's facepiece will be exposed to a radiant heat load of 15 kW/m² for 5 minutes while the SCBA is breathing at a rate of 40 lpm. The radiant heat panel is then removed and the SCBA must maintain a positive pressure for a period of twenty-four minutes regardless of the cylinder's capacity.
- New voice intelligibility requirements to eliminate the subjectivity of the testing and improve overall intelligibility
 - The Modified Rhyme Test (MRT) will no longer be used due to the subjectivity and lack of repeatability of the test protocol.
 - Introduction of the Speech Transmissibility Index (STI) to improve repeatability and reproducibility in the test results.
 - There are two test protocols: one for mechanical communication performance and another for amplified communication performance

- End-of-Service Time Indicator (EOSTI) will move from 25% to 33% (with a tolerance of -0%, +5% or 33% - 38%) of the cylinder's operating pressure
 - The chart below will demonstrate the differences in alarm set points after the standard promulgates

SCBA Cylinder Pressure	Alarm Point at 25%	Alarm Point at 33%
2216	550	730
3000	750	1000
4500	1125	1500
5500	1375	1825

- The NFPA committee has worked with NIOSH to establish minimum performance and approval requirements for Emergency Breathing Support Systems.
- For SCBA using a wired HUD system, the user may not be able to disconnect the HUD wire and still maintain the air connection.
- The SCBA must meet the Class I, Division I intrinsic safety requirements set forth in the 6th edition of UL 913 standard. The current NFPA standard calls out UL 913, 5th edition, containing very similar requirements for intrinsic safety standards.

NFPA 1982:

The key changes to the standard will be the introduction of a universal PASS sound and updating the intrinsic safety standards.

- Introducing a universal sounding alarm so that all PASS devices will have the same sound for both pre-alarm and full alarm.
- The PASS device must meet the Class I, Division I intrinsic safety requirements set forth in the UL 913, 6th Edition standard. The current NFPA Standard calls out UL 913, 5th Edition, containing very similar requirements for intrinsic safety.

Thank you for your continued support and confidence in Scott Safety and its life saving products. If you have further questions concerning the standard changes, please feel free to contact your local Scott Regional Sales Manager.

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8. Discussion and possible action on fire fighter injury data collection.

9. Discussion and possible action on future meeting dates, locations and agenda items.

10. Adjourn meeting.